APC223/300/308 PRO HA

SERVICE MANUAL

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EYE PROTECTION MUST BE WORN!	
	SAFETY GOGGLES MUST BE WORN WHEN DISASSEMBLING AND REASSEMBLING THE GUN. PARTS CAN GET INTO THE EYES IF HANDLED INCORRECTLY.

EAR PROTECTION MUST BE WORN!	
	SUITABLE HEARING PROTECTION MUST ALWAYS BE WORN WHEN SHOOTING WITH A FIREARM.

Related documents:

Semi automatic variants:

APC223/300/308 Operator Manual ..... TM-APC223/300/308 PRO HA EN
APC223 Parts Catalogue ..... PC-APC223 PRO-HA-EN
APC300 Parts Catalogue ..... PC-APC300 PRO-HA-EN
APC308 Parts Catalogue ..... PC-APC308 PRO-HA-EN

Full automatic variants:

APC223/300/308 Operator Manual ..... TM-APC223/300/308 PRO AA EN
APC223 Parts Catalogue ..... PC-APC223 PRO-AA-EN
APC300 Parts Catalogue ..... PC-APC300 PRO-AA-EN
APC308 Parts Catalogue ..... PC-APC308 PRO-AA-EN

Advice	
	This operator manual covers the entire APC223/556/300/308 weapon family. The pictures usually show the standard version. Where necessary the operating steps are shown separately for the different variants. Due to continuous efforts to improve the weapon, it is possible that certain descriptions in this manual may differ from the actual weapon.

Abbreviations

POA:	Point of aim
POI:	Point of impact
MPI:	Mean point of impact
SA:	Semi-automatic
AA:	Fully automatic
Left / right side:	Defined looking in firing direction

1. General rules

READ MANUAL BEFORE USE.

1.1 Safety rules

1. Consider every weapon loaded until checked personally by the individual operator.
2. Always keep fingers off the trigger and outside the trigger guard until the sights are on target.
3. Always point the weapon in a safe direction.
4. Verify your target and the backstop.
5. Before firing always verify the serviceability and condition of both the weapon and ammunition.
6. Hearing and eye protection are mandatory.
7. Be sure to use NATO, SAAMI or CIP certified cartridges of correct caliber only.

SAFETY ADVICE!	
	Defects that can be traced back to the use of non NATO, SAAMI or CIP ammunition (especially reloaded cartridges) are not covered by the guarantee!

8. If a cartridge fails to ignite, keep the muzzle pointed in a safe direction and open the chamber only after a minimum of 30 seconds.
9. Live fire training should be carried out in open or well-ventilated areas to prevent excessive exposure to toxic gases.
10. Operate your weapon consciously and do not use excessive force.

1.2 Maintenance rules

1. The weapon is to be cleaned after each deployment or firing.
2. Any malfunctions are to be reported to the unit armorer or manufacturer.
3. The weapon is to be presented to the unit armorer for inspection after each mission or a minimum of once per year.

2. Technical specifications

2.1 Overview - APC223/300/308 PRO

2.2 General description

The APC223/300/308 PRO is a self-loading rifle in .223 Rem. / .300 Blk. / .308 Win. caliber.

The rifle is a gas operated rifle with a short-stroke gas piston system: the gas port near the muzzle directs the propellant gases behind the projectile via gas piston onto the bolt carrier and sets it in a recoiling motion. After the projectile has left the barrel, the recoiling bolt carrier unlocks the bolt head by means of a rotary movement. In the common recoil of the bolt head and carrier, the empty case is extracted and ejected, the hammer is cocked and the recoil spring compressed. At the end of the return stroke, a recoil buffer slows down the movement of the carrier and then the recoil spring accelerates it forward again.

In the common forward stroke, the bolt head and carrier take a new cartridge from the magazine and feed it into the chamber. At the end of such a cycle, the gun is locked, loaded and cocked.

All operating elements such as the bolt catch, magazine catch, fire selector and charging handle are designed to be operated from both sides. The charging handle is not reciprocating.

2.3 General technical data

Description	APC_ PRO SA
Manufacturer	B&T AG - Switzerland
Operating system	Short stroke gas piston
Sights	Iron sights (on NAR)
Bore height	80 mm / 3.14 in
Rail height	45.7 mm / 1.79 in
Interfaces	4 NATO accessory rails
Scope of delivery	Weapon with magazines, carrying sling, cleaning kit, case

Stock options	Stock length			Stock width		Stock weight diff. to standard	
	retracted	extracted	folded / retracted	folded out / extracted	folded / retracted	.223/300	.308
	[mm]					[g]	
Fold- retract. stock PRO *	193	270	30	52	84	0 (491)	0 (543)
folding stock	240	n.v.	30	621	102	-72	-66
Fold- retract. stock **	202	262	30	62	102	+151	+156
Fold- retract. stock QD **	202	262	30	62	102	+163	+168
Fix stock	193	n.v.	n.v.	102	n.v.	-10	-5
Helmet stock	232	293	30	62	105	-125	-119
Telescopic stock	n.v.	232	53	55	n.v.	+55	-17
Teleskop. Brace Adapter	n.v.	216	67	55	n.v.	+30	+23
Pistol adapter	30	n.v.	n.v.	62	n.v.	-301	-295
M4-Adapter foldable **	59	n.v.	30	62	102	-251	-245
NAR-Adapter	20	n.v.	n.v.	38	n.v.	-315	-368

* Standard - Extracted to the maximum, intermediate positions existent.

**Extracted to the maximum, intermediate positions existent

*** without M4 stock

Technical data are provided for information only and shall not serve as acceptance criteria.

2.3.1 Technical data - APC223 PRO SA

Description	APC223 PRO SA
Product ID	BT-361603
Caliber	.223 Remington
Magazine capacity	30 rounds
Rifling	6 grooves, right hand twist
Swirl length	178mm (1:7)

Type		Standard Barrel 264 mm	Barrel 222 mm	Barrel 308 mm	Barrel 420 mm
Barrel length	[mm]	264	222	308	420
Length standard	[mm]	723	680	766	878
Length receiver	[mm]	530	487	573	685
Stock width	[mm]	53	53	53	53
Height *	[mm]	211	211	211	211
Weight	[kg]	3.27	3.23	3.39	3.69

* Without magazine, flip-up sights folded.

2.3.2 Technical data - APC300 PRO SA

Description	APC300 PRO SA
Product ID	BT-361563
Caliber	.300 Blackout
Magazine capacity	30 rounds
Rifling	4 grooves, right hand twist
Swirl length	203mm (1:8)

Barrel length	[mm]	222
Length standard	[mm]	682
Length receiver	[mm]	489
Stock width	[mm]	53
Height *	[mm]	211
Weight	[kg]	3.15

* Without magazine, flip-up sights folded.

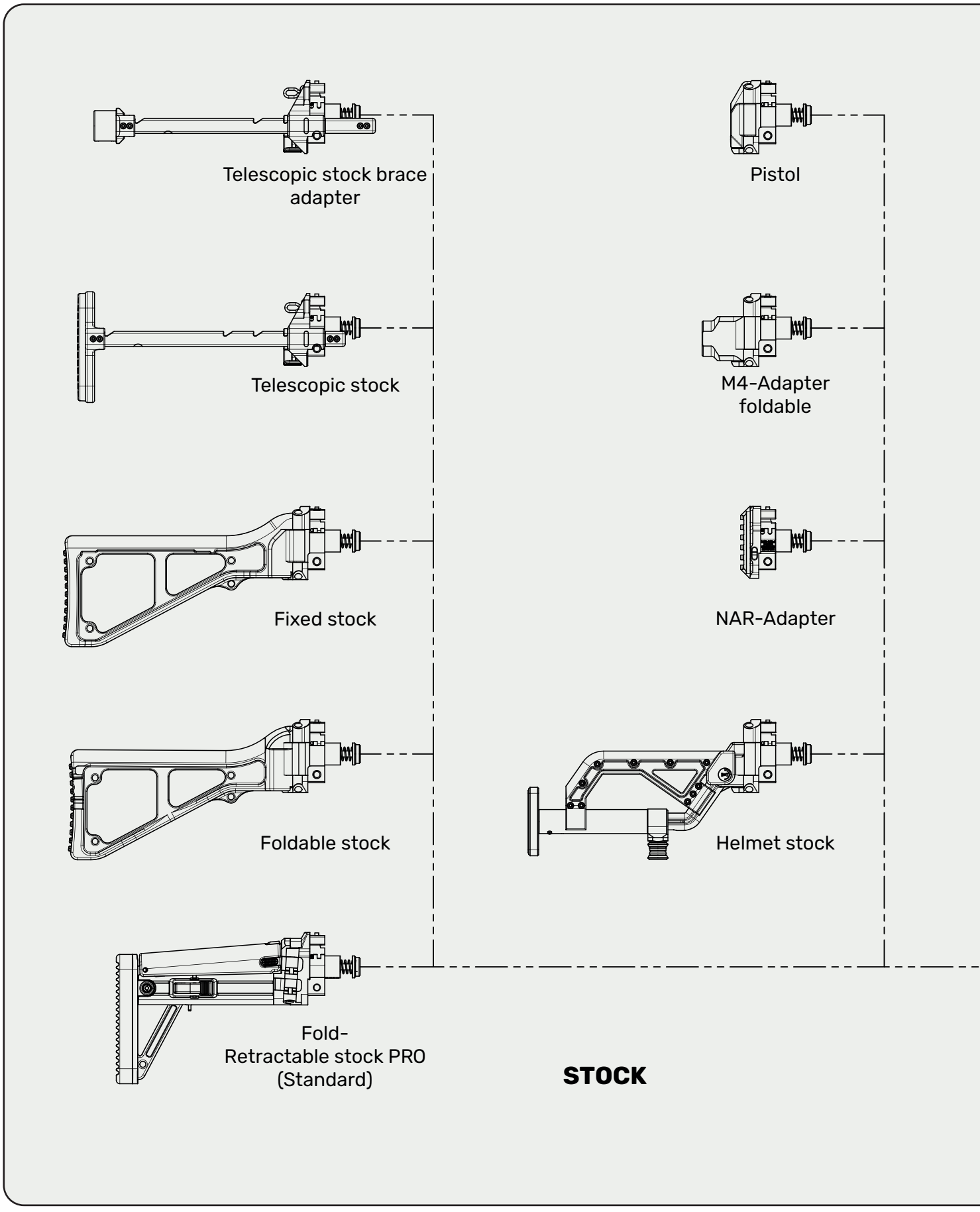
2.3.3 Technical data - APC308 PRO SA

Description	APC308 PRO SA
Product ID	BT-361693
Caliber	.308 Winchester
Magazine capacity	20 rounds
Rifling	4 grooves, right hand twist
Swirl length	305mm (1:12)

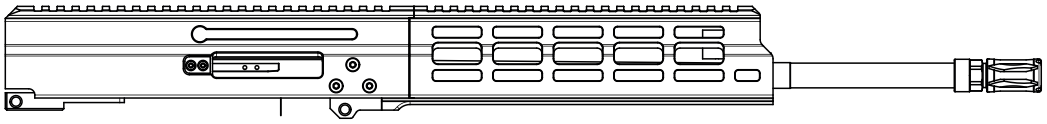
Type		Standard Barrel 330 mm	Barrel 363 mm	Barrel 480 mm
Barrel length	[mm]	330	363	480
Length standard	[mm]	823	698	983
Length receiver	[mm]	630	667	790
Stock width	[mm]	53	53	53
Height*	[mm]	211	211	211
Weight	[kg]	4.01	3.75	4.47

* Without magazine, flip-up sights folded.

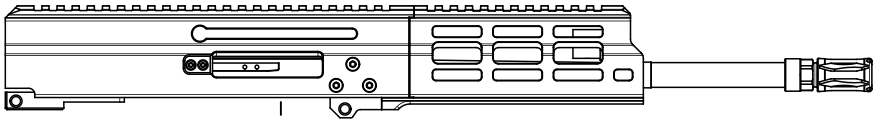
2.4 Variant overview - APC223/300 PRO



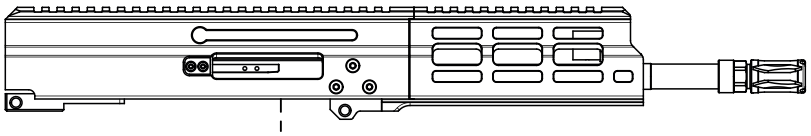
Barrel length 420 mm



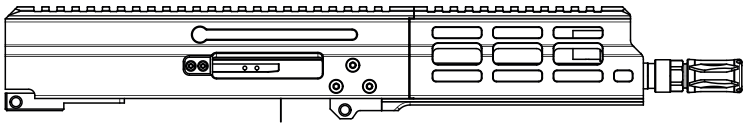
Barrel length 308 mm



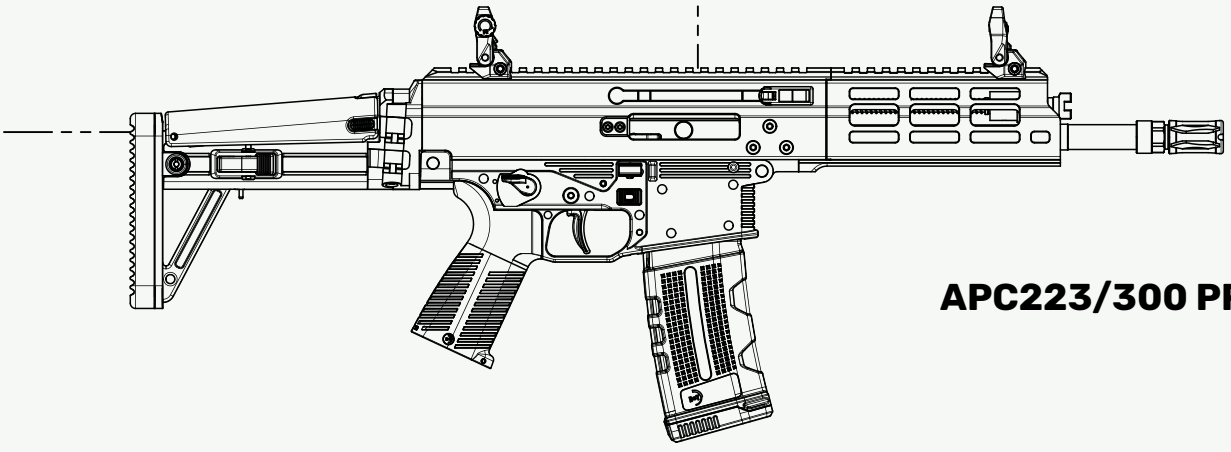
Barrel length 264 mm (standard)



Barrel length 222 mm

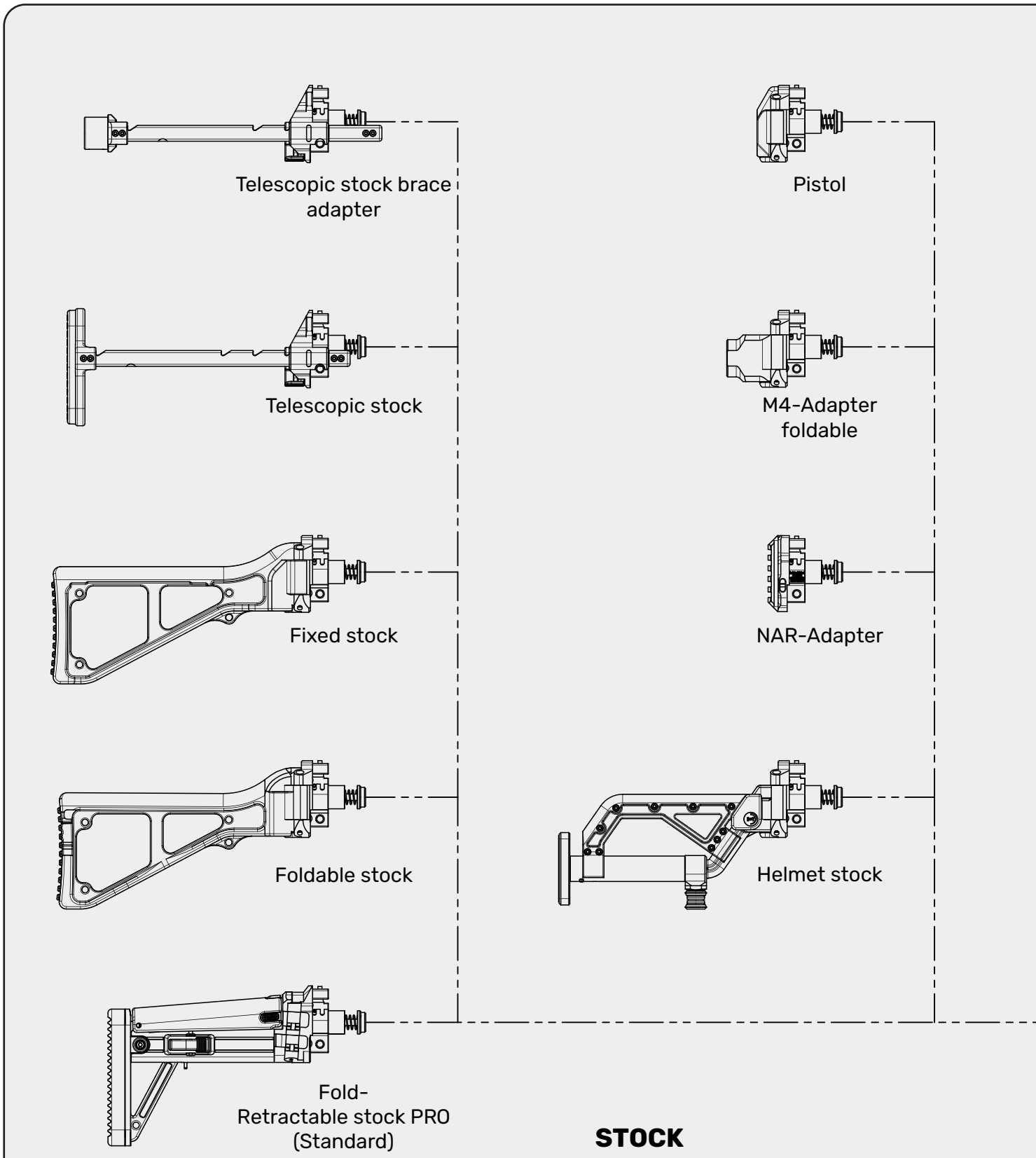


UPPER RECEIVER

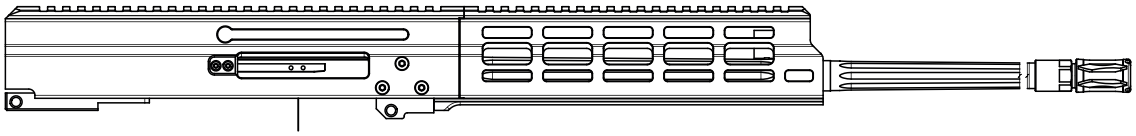


APC223/300 PRO

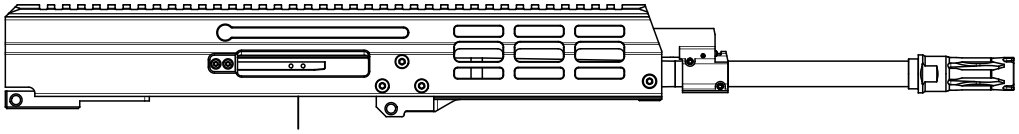
2.5 Variant overview - APC308 PRO



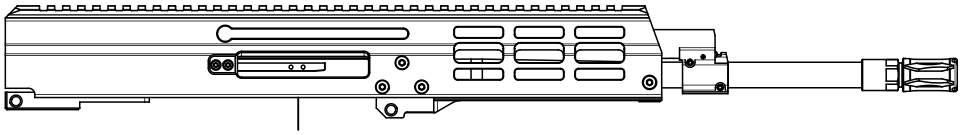
Barrel length 480 mm



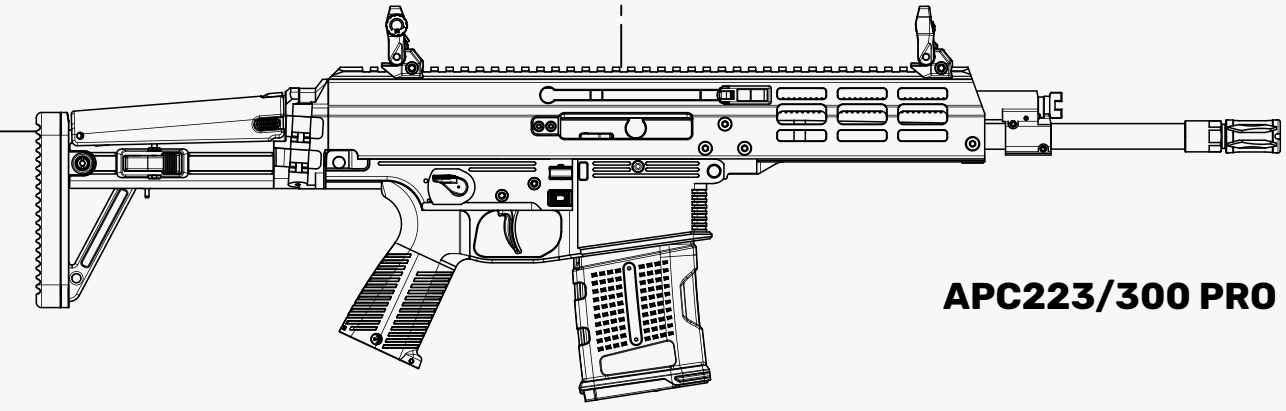
Barrel length 363 mm



Barrel length 330 mm (standard)



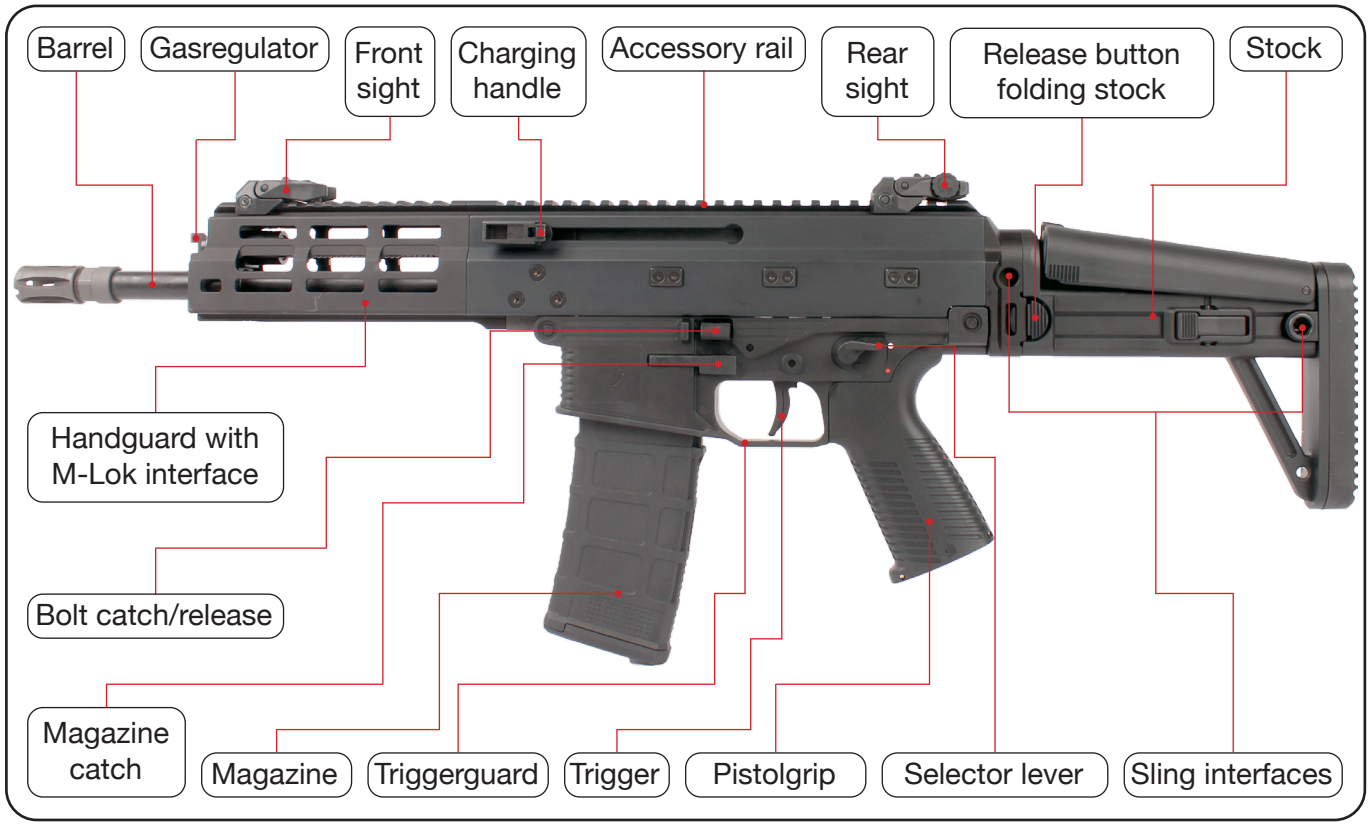
UPPER RECEIVER



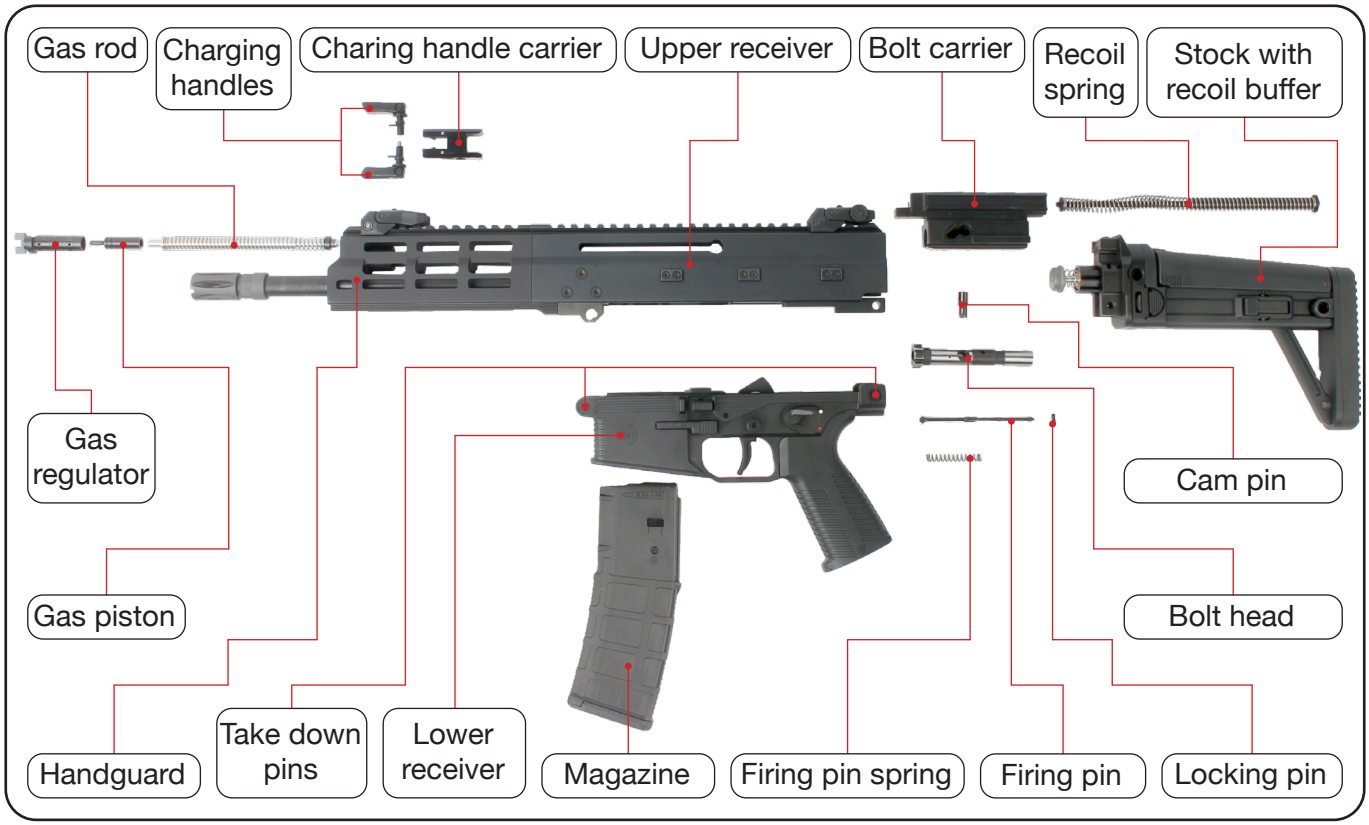
APC223/300 PRO

3. Nomenclature

3.1 Weapon complete



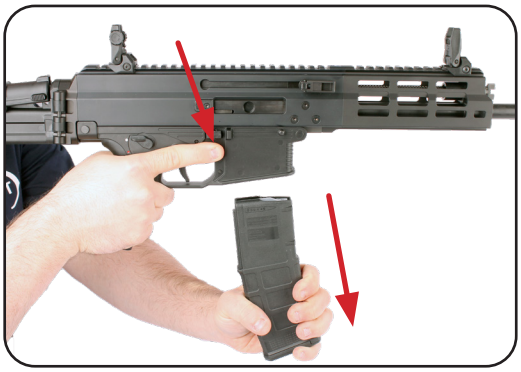
3.2 Weapon disassembled



4. Operating

4.1 Clearing weapon

a. Set the fire selection lever to “safe”.
b. Press the magazine retainer and pull the magazine downward out.



c. Pull the charging handle completely to the rear and inspect the chamber visually to be clear.
d. Lock the bolt in open position

4.2 Weapon operation

All operating steps can be taken from the corresponding manual.

5. Maintenance plan

5.1 Routine maintenance

a. The weapon is to be cleaned after each deployment or firing.
b. Report malfunctions to unit armorer or manufacturer.
c. After each use, or at least once a year, the weapons are to be inspected by the unit armorer and a functional test is to be carried out.

5.2 Preventive maintenance

a. Every 5,000 rounds, a basic cleaning must be performed by the unit armorer. This includes a complete disassembly of the gun and washing of all parts.
b. To reduce the probability of failure of the gun, it is recommended to replace the wear parts after 5,000 shots and the spare parts after 10,000 shots as a precaution.
c. The replacement of the parts is to be carried out according to the respective descriptions in this document.

Type	Description	Item No.		
		APC223 Pro	APC300 Pro	APC308 Pro
Wear Parts	Extractor	BT-36867		BT-36695
	Extractor spring	BT-36542		BT-36818
	Extractor plunger	BT-36540		N/A
	Extractor Axle	N/A		BT-36819
	Ejector pin	BT-36543		
	Ejector spring	BT-36629		BT-36702
	Ejector	BT-36541		
	Disconnector	SA: BT-36191 - AA: BT-36297		
	Disconnector spring	BT-36232		
Spare parts	Cam pin	BT-361364		BT-361695
	Gas rod	BT-36511	BT-36659	BT-36724
	Firing pin	BT-36544		BT-36697
	Firing pin spring	BT-36547		
	Hammer axle	BT-36228		
	Hammer spring	SA: BT-36598 - AA: BT-36382		
	Trigger return spring	BT-36375		

5.3 Function check

a. Clear weapon (see chapter 4.1 page 15).
b. Push on right side bolt catch
   » The bolt shall snap into closed position.
c. Pull the charging handle to its rearmost position and push the bolt catch upward
   » The bolt shall stay in open.
d. Push on the left side bolt catch
   » The bolt shall snap into closed position.

e. Engage the safety and pull the trigger
   » The hammer shall not strike.
f. Rotate the fire selector to all existing positions and back. Perform the check with both sides
   » The fire selector shall snap audibly in all positions.
g. Rotate the fire selector to single fire position, pull the trigger and hold
   » The hammer shall strike audibly.
h. Pull the charging handle to the rearmost position and slide it to forward position. Release the trigger and pull it again
   » The hammer shall strike audibly.
i. Engage the safety, insert an empty magazine and pull downward
   » The magazine retainer must hold securely.
j. Pull the charging handle to the rearmost position and release
   » The bolt shall stay open.
k. Push the left magazine retainer and pull the magazine downward
   » The magazine shall come loose.
l. Reinsert the empty magazine, push the right magazine retainer and pull the magazine downward
   » The magazine shall come loose.
m. Pull the charging handle to the rearmost position and release
   » The olt shall run to closed position.
n. Repeat the steps i to m with all available magazines.
o. Engage the sights (front and rear).
   » Both shall audibly snap in open position and point straight upward.
p. Close sights (front and rear).
   » Both shall audibly snap in closed position.
q. Turn the gas nozzles to all three positions
   » Gas nozzle should engage in any position.
r. Check the extracting and the retracting and the locking mechanisms of installed stock for proper function
s. Inspect installed accessories for function and tight mounting.

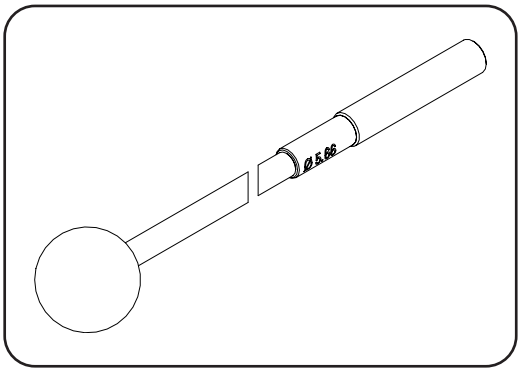
Only applies for fully automatic variants:
t. Set the fire selector lever to «serial fire» and back to «single fire».
   » should engage audibly in both positions.
u. Rotate the fire selector to full auto position, pull trigger and hold
   » The hammer shall strike audibly.
v. While pulling the trigger, pull the charging handle to the rearmost position and slide it to the forward position
   » The hammer shall strike audibly when the bolt reaches the forward position.

If any function fails, disassemble the weapon, check for defective pats, reassemble the weapon and check for correct reassembly. If the failure persists, refer to unit armorer or manufacturer.

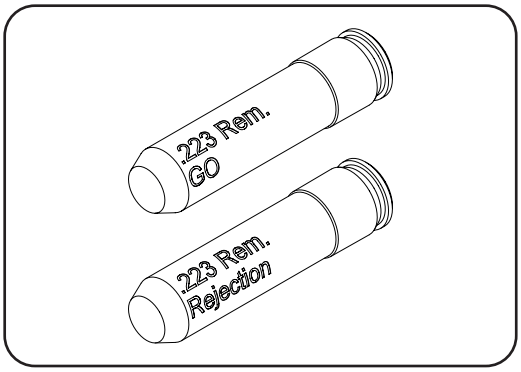
6. Gauges

Below listed gauges are required to inspect the APC556:

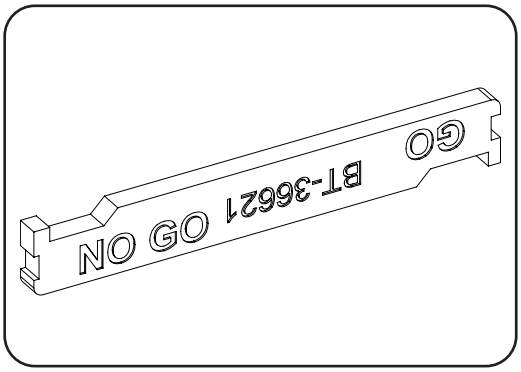
a. Barrel gauge rejection



b. Headspace gauges



c. Combined extractor/firing pin gauge

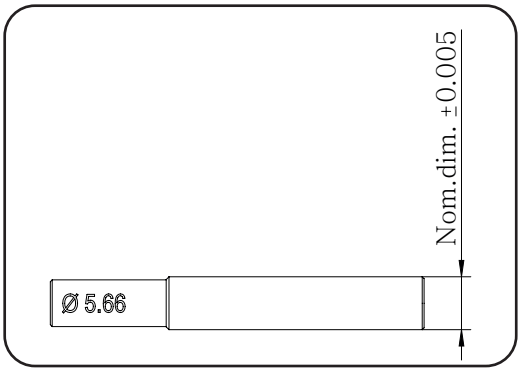


Description		Item No.		
		APC223 Pro	APC300 Pro	APC308 Pro
Barrel gauge rejection		BT-36847	BT-361058	
Headspace gauges	Go	BTL-2067621	BTL-2285421	BTL-2299621
	Rejection	BTL-2067622-0.15	BTL-2285422-SO	BTL-2299622-0.15
Combined extractor and firing pin gauge		BT-36621		N/A

6.1 Gauge inspection

6.1.1 Inspection barrel rejection gauge

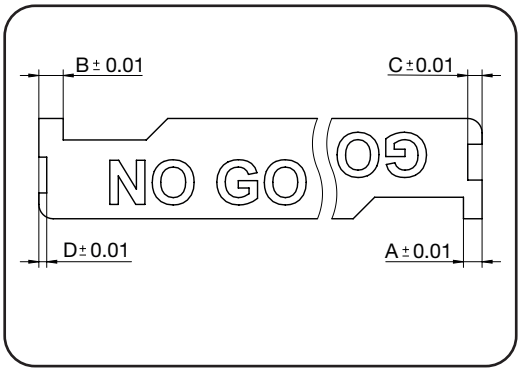
a. Visually inspect the gauge for rust, notches, breakouts, and deformations.
   » If present, the gauge must be suspended
b. Check the dimensions according to the picture and table.
   » If not fulfilled, the gauge must be suspended.



Description	Nominal Dimension		
	APC223 Pro	APC300 Pro	APC308 Pro
Barrel gauge rejection	5.660	7.750	

6.1.2 Inspection firing pin protrusion gauge

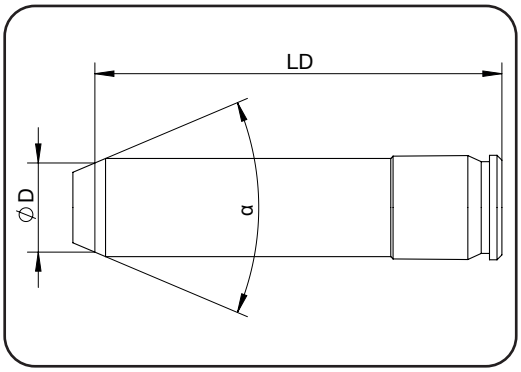
a. Visually inspect the gauge for rust, notches, breakouts, and deformations.
   » If present, the gauge must be suspended
b. Check the dimensions according to the picture
   » If not fulfilled, the gauge must be suspended.



Measure	Gauge	
	APC223/300 Pro	APC308 Pro
A	1.30	N/A
B.	1.70	N/A
C	1.00	N/A
D	0.55	N/A

6.1.3 Inspection bolt rejection gauge

a. Visually inspect the gauge for rust, notches, breakouts, and deformations.
   » If present, the gauge must be suspended
b. Check the dimensions according to the picture
   » If not fulfilled, the gauge must be suspended



Dimension		Gauge					
		.223		.300		.308	
		Go	Rejection	Go	Rejection	Go	Rejection
ØD	Nominal[mm]	7.750	7.750	8.875	8.875	N/A	N/A
	Maximal [mm]	7.761	7.750	8.884	8.875	N/A	N/A
	Minimal [mm]	7.752	7.737	8.877	8.868	N/A	N/A
LD	Nominal[mm]	37.921	38.071	27.456	27.606	N/A	N/A
	Maximal [mm]	37.934	38.071	27.467	27.606	N/A	N/A
	Minimal [mm]	37.923	38.060	27.458	27.597	N/A	N/A
α	Nominal[mm]	46° 00`	46° 00`	46° 00`	46° 00`	N/A	N/A
	Maximal [mm]	46° 09`	46° 09`	46° 09`	46° 09`	N/A	N/A
	Minimal [mm]	46° 51`	45° 51`	45° 51`	45° 51`	N/A	N/A

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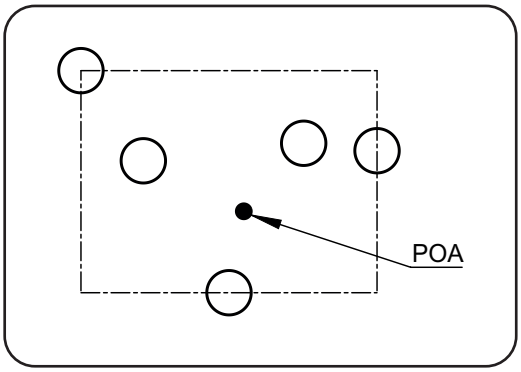
7. Inspections and measures on weapon complete

7.1 Zero check

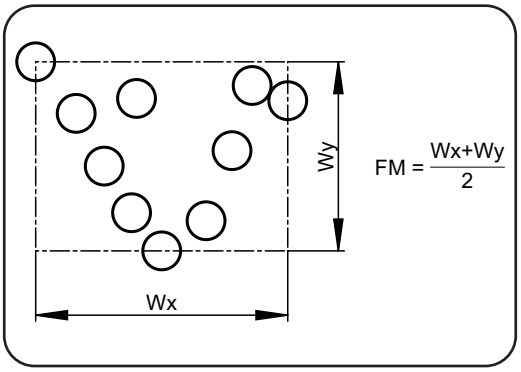
a. Shoot 5 shots at a targeted shooting distance (30 m recommended).
b. Determine the covering rectangle.
c. If the covering rectangle contains the aiming point (POA), the sight setting is correct.
d. If the covering rectangle does not contain the aiming point (POA), adjust the setting of the sight (see chapter 8.1 page 24).



7.2 Checking the precision

7.2.1 Evaluating the precision

The figure of merit is used as a measure of precision.
The figure of merit is the average of the maximum horizontal (Wx) and vertical spread (Wy) of a 10-shot group.



7.2.2 Collecting reference Data

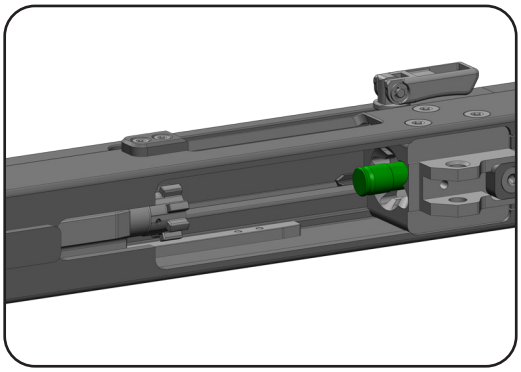
The reference value of the existing weapon/ammunition combination is determined by determining the FM of 10 randomly selected weapons and averaging them.

7.2.3 Assessing an individual weapon

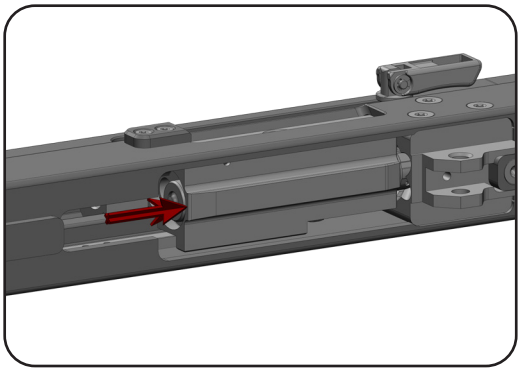
If the FM of the tested weapon exceeds 1.5x the reference value, action is indicated.
In this case, first check the sights (see chapter 8.1 page 24) and after any measures determine the FM again. If the accuracy remains poor, check the barrel (see chapter 9.1 page 25) and determine the FM again after taking any necessary measures.
If successful, check point of impact (see chapter 7.1 page 22), otherwise suspend the weapon for use and contact the manufacturer.

7.3 Bolt distance inspection

Advice
If the headspace gauge is inserted, do not allow the bolt catch to snap forward.

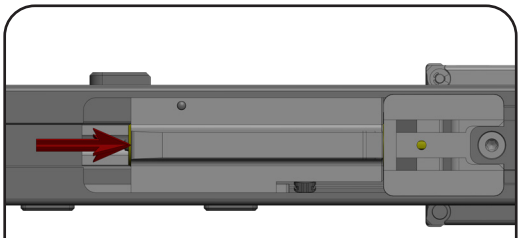


a. Remove the lower receiver, stock and recoil spring.
b. Insert the headspace gauge into the cartridge chamber.
c. Slide forward the bolt in the receiver.
d. Apply a slight amount of pressure to the bolt carrier until the extractor engages with the groove of the gauge.
   » Check that the bolt has reached the most forward position. In this case, the bolt carrier is attached to the barrel chamber.
   » If the bolt is not in the forward-most position, there is approximately 5mm distance between the bolt carrier and the barrel chamber.
e. The bolt distance is correct if the bolt moves to the forward position with the Go gauge and the rejection gauge does not reach the forward position.

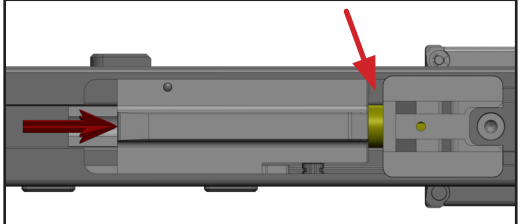


If not fulfilled, remove the bolt head, clean it, and check for wear.

» If wear is visible, replace the bolt head and repeat the inspection.
» If no wear is visible, repeat the inspection with the cleaned bolt head, barrel chamber and cartridge chamber.
» If still not fulfilled, replace the barrel. (see chapter 9.3.5 page 29)



Bolt in the most forward position



Bolt not in the most forward position

8. Inspections and measures on the sights

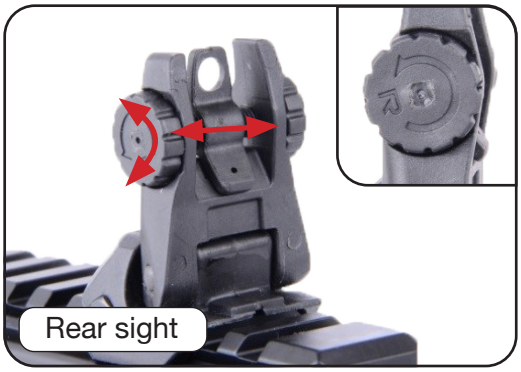
8.1 Adjusting the sights

a. Push the sights up until they snap in upright position.
   » Operator Manual
b. Turn the adjusting wheel in the front sight in the direction of the arrow «UP» to raise the MPI.

One click	1.5cm @ 30m
One turn	6cm @ 30m

c. Turn the rear sight wheel in the direction of the arrow «R» to move the MPI to the right.

One click	1cm @ 30m
One turn	6cm @ 30m

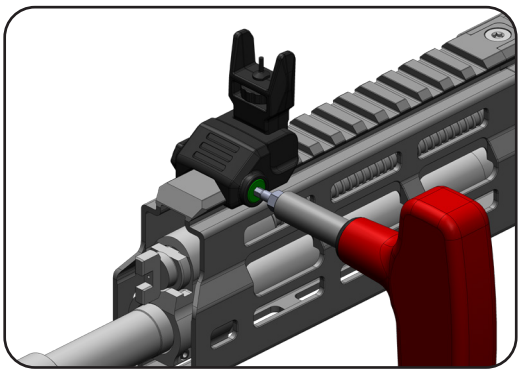


d. Perform a zero check (see chapter 7.1 page 22).

8.2 Inspection and measures

a. Check the sights for signs of impact or other excessive force and suspend them for use if necessary.
b. Open both sights by hand until they audibly engage in the vertical position.
c. Fold in the sights by hand until they audibly engage in the horizontal position.

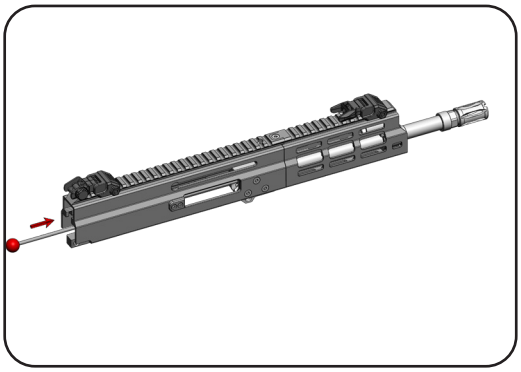
d. Grasp the sights firmly and try to move them. If play can be detected, increase the clamping tension clockwise using an Allen key.
e. Perform a zero check in accordance with section 6.2.



9. Inspections and measures on the upper receiver

9.1 Barrel caliber inspection

a. Disassemble the weapon, clean the barrel and wipe it dry with a cotton rag.
   » Operator manual.
b. Insert the plug gauge into the barrel in firing direction.
   » If the gauge intrudes through the entire barrel, reject the barrel for being to wide.

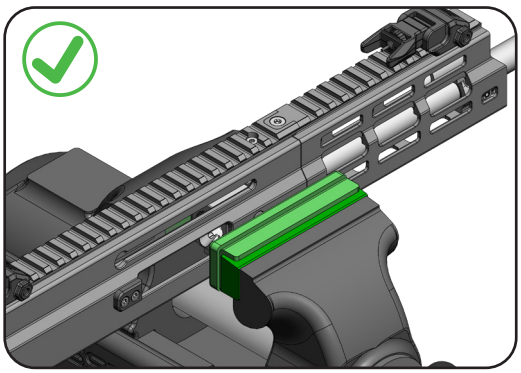


Advice	
	Do not apply excessive force when inserting the gauge. This could damage the barrel.

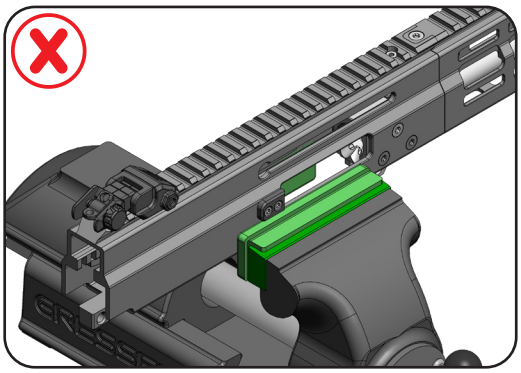
9.2 Clamping the upper receiver

SAFETY ADVICE!	
	CLAMPING THE UPPER RECEIVER AT AN INCORRECT POINT OR WITH EXCESSIVE FORCE CAN LEAD TO DAMAGE!

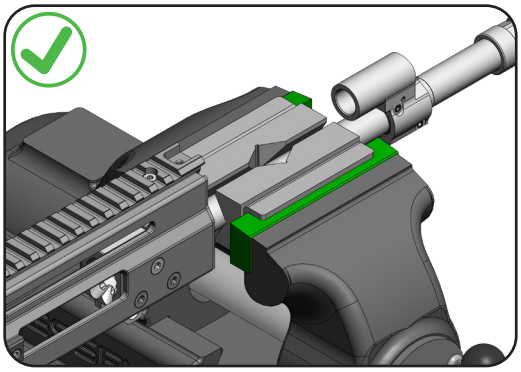
Use plastic jaws to clamp the upper receiver in the vice.
The upper receiver can be clamped in the area of the barrel block; use flat plastic vise jaws for this purpose.



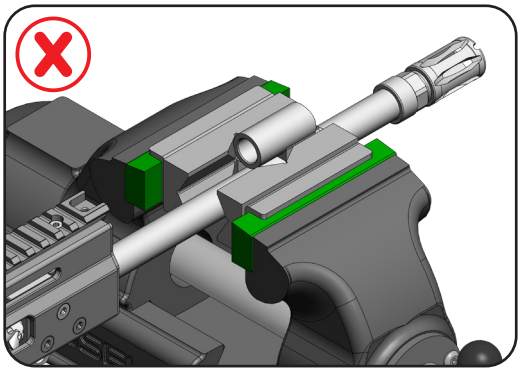
Advice	
ⓘ	Never tension the upper receiver in the area of the ejection window.



To change the muzzle attachment (flash hider/silencer), the barrel must be cocked directly. This is best done between the gas block and the barrel bearing, if the barrel length allows it, also between the gas block and the muzzle.
Prismatic jaws should be used for this clamping.



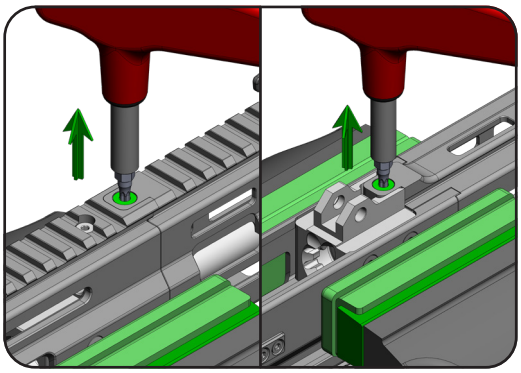
Advice	
ⓘ	Never tighten the barrel on the gas block.



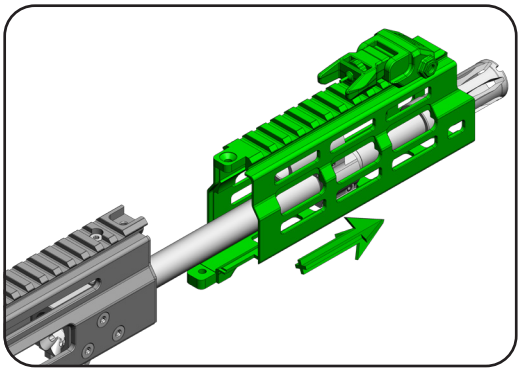
9.3 Measures on the upper receiver

9.3.1 Changing the handguard

a. Disassemble the weapon.
   » Operator Manual
b. Clamp the upper part of the receiver in a vice.
c. Heat the upper and lower hand protection screws with a hot air gun and remove them. (TORX 20)
d. Remove the handguard from the upper part of the receiver.

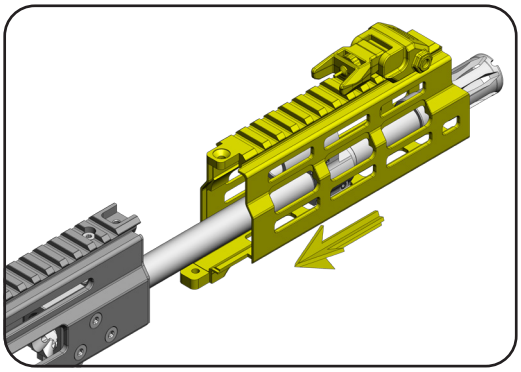


e. Clean the threads in the top part of the receiver of any adhesive residue.

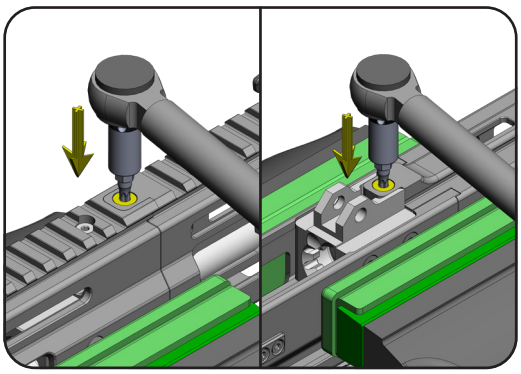


9.3.2 Reassembly of the handguard

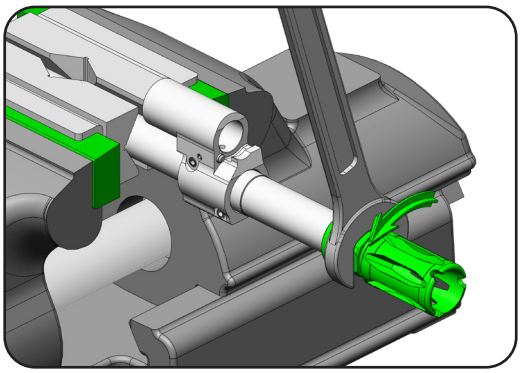
a. Degrease the threaded holes for the handguard in the top of the housingand apply Loctite 603.
b. Slide the handguard onto the top of the housing.



c. Screw in the upper and lower hand protection screws and tighten them hand-tight. (TORX 20, 2 Nm)

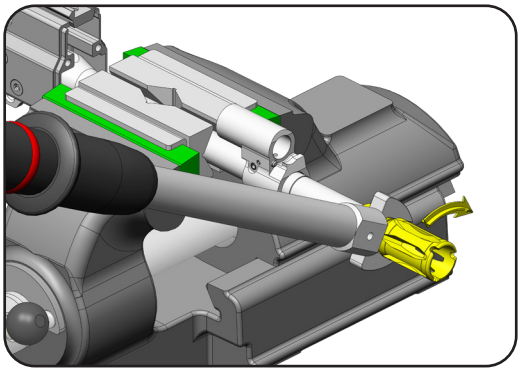


9.3.3 Changing the muzzle attachment



a. Disassemble the weapon.
   » Operator manual
b. Clamp the upper part of the housing in a vice.
   » The handguard may need to be removed (see chapter 9.3.1 page 27)
c. Heat the threaded section of the muzzle attachment with a hot air gun.
d. Remove the muzzle attachment using a suitable fork wrench.
e. Remove any remaining glue on the threads of the barrel and the muzzle attachment.

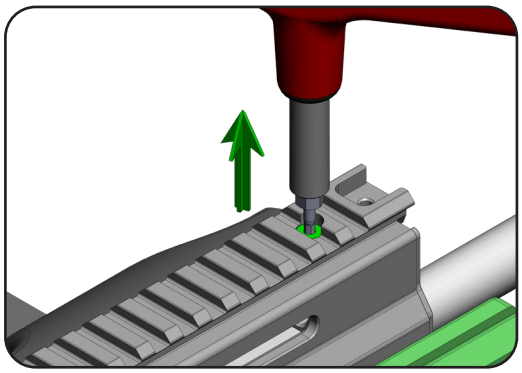
9.3.4 Reassembly of the muzzle attachment

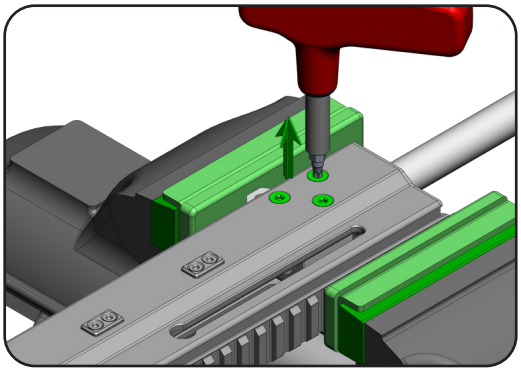


a. Clamp the upper part of the receiver in a vice.
   » The handguard may need to be removed (see chapter 9.3.1 page 27).
b. Clean and degrease the threads of the barrel and flash hider.
c. Apply Loctite 272 to the thread of the barrel and muzzle attachment.
d. Screw the muzzle attachment onto the barrel.
e. Tighten the muzzle attachment to 50 Nm using a torque wrench and a suitable jaw insertion tool.

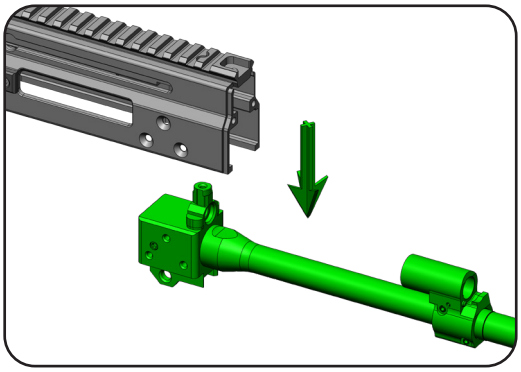
9.3.5 Changing the barrel

a. Disassemble the weapon.
   » Operator manual.
b. Remove the handguard (see chapter 9.3.1 page 27).
   » The muzzle attachment may need to be removed (see chapter 9.3.3 page 28).
c. Cock the upper housing vertically in the vice.
d. Heat the upper barrel chamber screw with a hot air gun and remove it. (Allen 3mm)
e. Clamp the upper housing horizontally in the vice.
f. Heat the side barrel chamber screws with a hot air gun and remove them. (TORX 20)
g. Repeat step “e” and “f” on the other side of the housing.



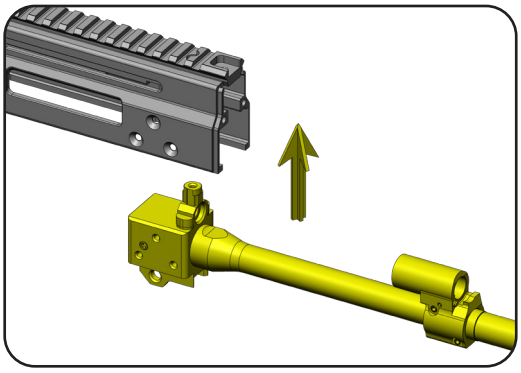


h. Remove the barrel from the upper receiver towards the rear.
i. Clean the upper housing of any adhesive residue

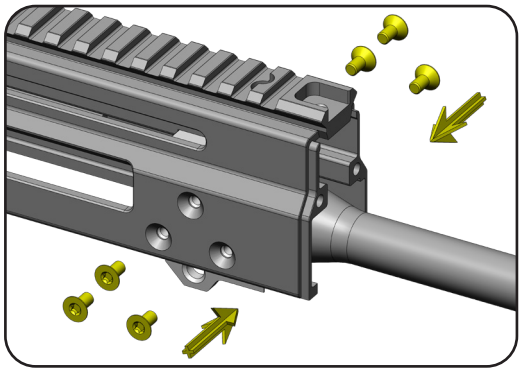


9.3.6 Reassembly ot the barrel

Advice	
	Do not use the removed screws again to install the new barrel. Only use screws obtained from the manufacturer for mounting the barrel.

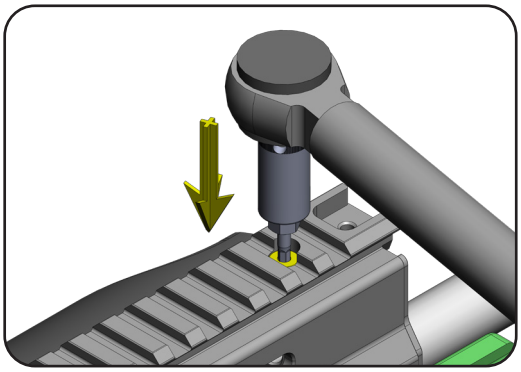


a. Clean the mating surfaces on the barrel, top mounting and screws.
b. Degrease the threaded holes in the barrel chamber and the screws and apply Loctite 603.

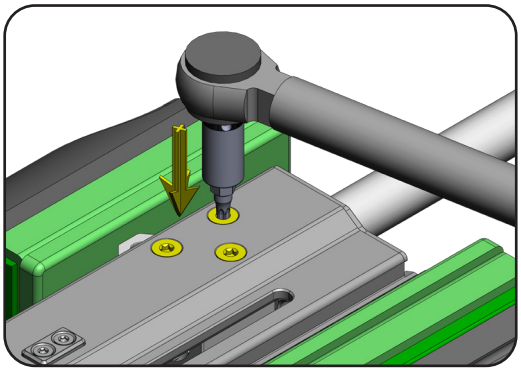


c. Insert the barrel into the top housing from below.
d. Insert the 6 side barrel chamber scres and tighten them hand-tight.

Advice	
	The side bearing screws must not be tightened to torque before the upper screw! This may cause the system to misalign. .



e. Clamp the upper housing vertically in the vice.
f. Tighten the upper barrel chamber screw with a torque wrench. (Allen 3mm, 5.5 Nm)

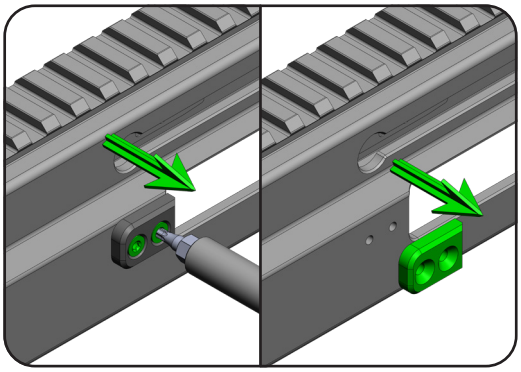


g. Clamp the upper housing horizontally in the vice.
h. Tighten the side barrel chamber screws with a torque wrench. (TORX 20, 5.5 Nm)
i. Repeat step “g” and “h” on the other side of the housing.

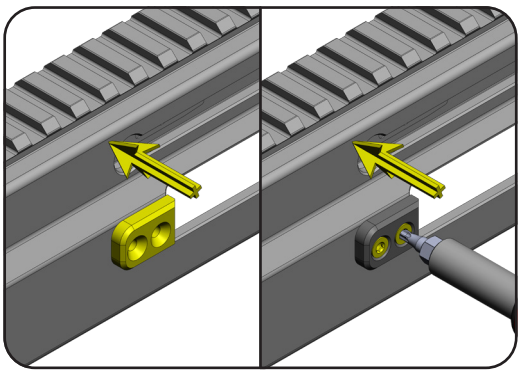
j. Reinstall the handguard and, if necessary, the muzzle attachment.
k. Execute function check.(see chapter 5.3 page 16)
l. Execute bolt distance inspection.(see chapter 7.3 page 23)
m. Perform a zero check.(see chapter 7.1 page 22).
n. Check the precision.(see chapter 7.2 page 22)

9.3.7 Replacing the brass deflector

a. Disassemble the weapon.
   » Operator manual.
b. Remove the brass deflector retaining bolts. (TORX 10)
c. Remove the brass deflector.
d. Clean the threaded holes in the upper housing of any adhesive residue.

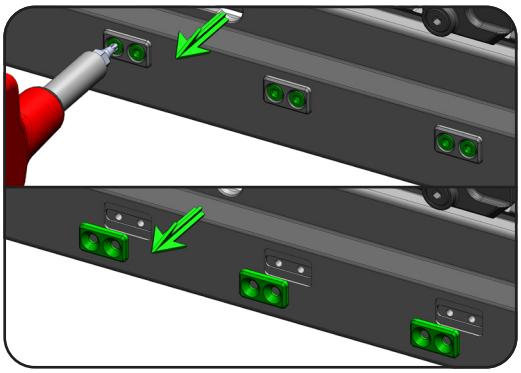


e. Degrease the threaded holes in the top housing and screws, then apply Loctite 243.
f. Place the brass deflector.
g. Install and tighten the brass deflector retaining bolts. (TORX 10, 1 Nm)

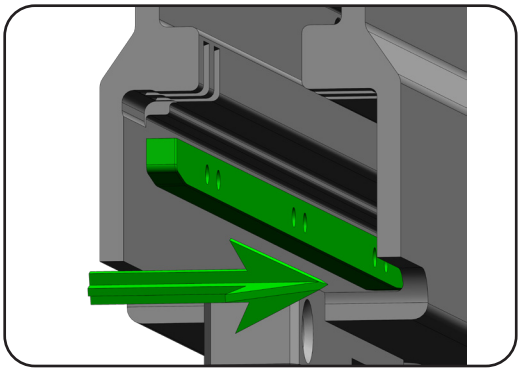


9.3.8 Replacing the bolt guide

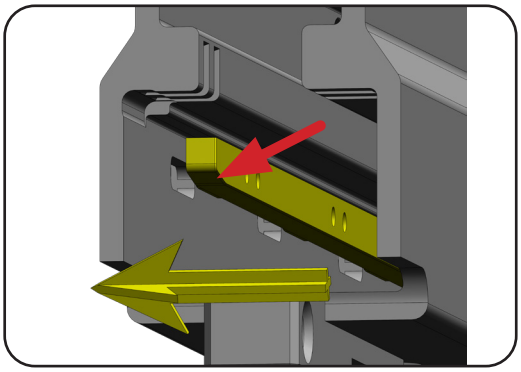
a. Disassemble the weapon.
   » Operator Manual
b. Heat the screws of the bolt guide with a hot air gun and remove them. (TORX 10)
c. Remove the bearing plates from the top holding.



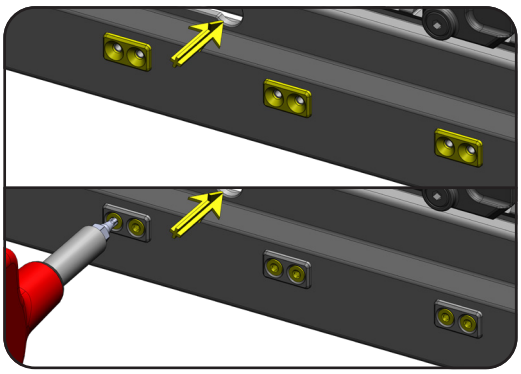
d. Remove the bolt guide from the housing
e. Clean the bearing plates and upper housing of any adhesive residue.



f. Degrease the threaded holes of the bolt guide and the screws, then apply Loctite 603.
g. Insert the bolt guide with the insertion angle facing downwards.



h. Place the three bearing plates on the housing.
i. Install and tighten the screws of the bolt guide. (TORX 10, 1 Nm)



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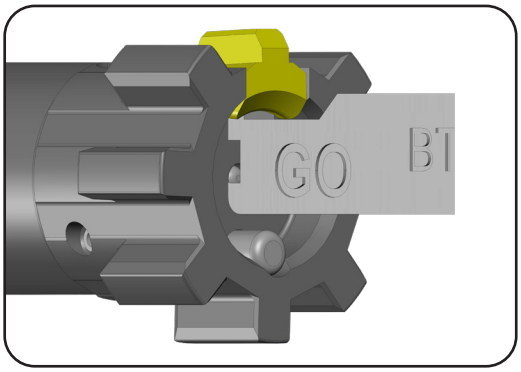
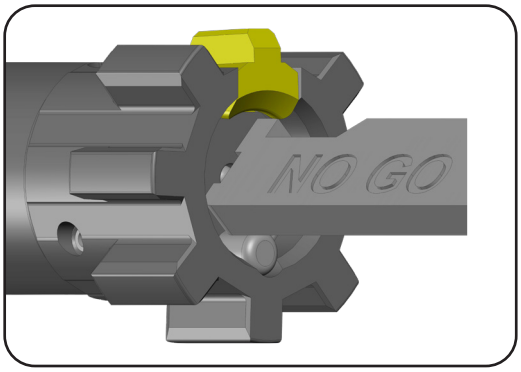
10. Inspections and measures on the bolt

10.1 Inspection and measures

10.1.1 Inspecting the extractor

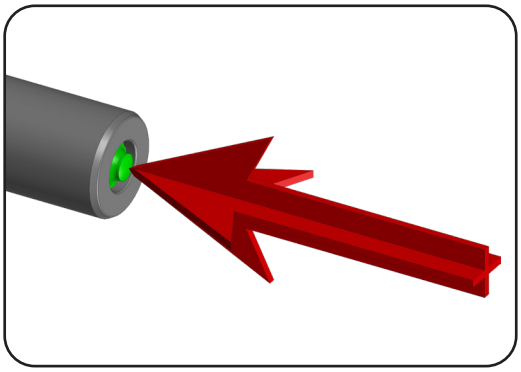
a. Disassemble the weapon.
   » Operator manual.
b. Visually check the extractor for wear and replace if necessary. (see chapter 10.2.1 page 35)
c. Use the combined gauge (see chapter 6 page 18) to check the distance between the extractor and the bolt face plate:
   » GO side must fit under extractor claw.
   » NO-GO side must not.
d. If check is not successful, clean parts and check again.
e. If the check is still not satisfied, the extractor must be replaced.



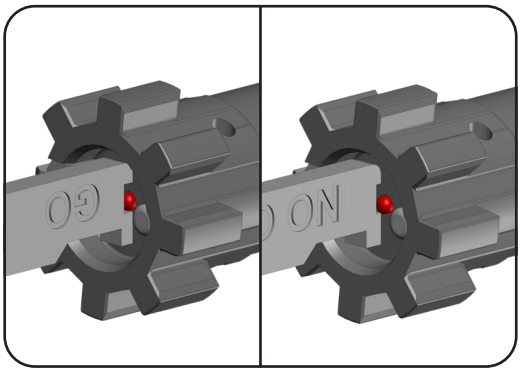


10.1.2 Firing pin

a. Disassemble the weapon.
   » Operator manual.
b. Press the firing pin into the back of the bolt head and hold it down during the test.
c. Inspect the tip of the firing pin for wear and damage, replace if necessary. (see chapter 10.2.3 page 38)



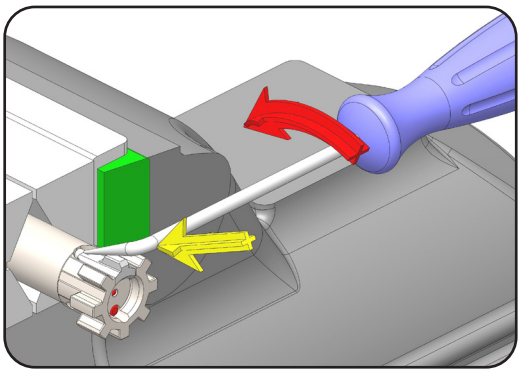
d. Use the combination gauge (see chapter 6 page 18) to check the firing pin board.
   » The GO side must slide over the tip of the protruding firing pin.
   » The NO-GO side must not.
e. If the test fails, replace the firing pin (see chapter 10.2.3 page 38)



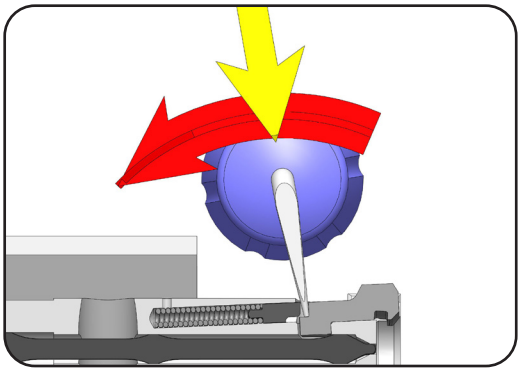
10.2 Measures on the bolt

10.2.1 Replace the extractor 223/300

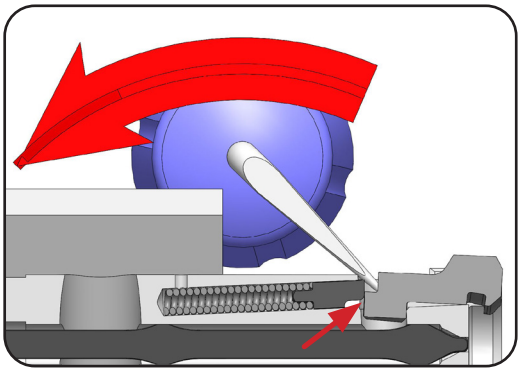
a. Disassemble the weapon.
   » Operator manual.
b. Fix the bolt head in a vice with prism jaws.
c. Place the hook tool in the groove in the extractor.
d. At the same time, push the hook tool forward (yellow arrow) and turn it (red arrow) to get between the extractor and the extractor plunger.



e. Continue to turn the hook tool and use it to lift the extractor.

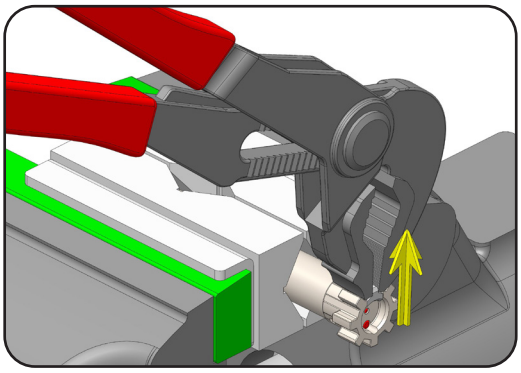


f. As soon as the rear edge of the extractor plunger is held in position, the hook tool can be removed.

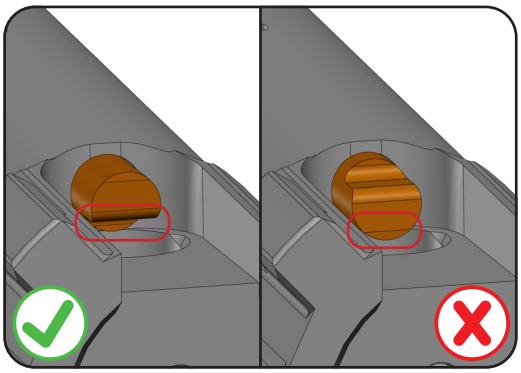


g. Remove the extractor with pliers.
h. Remove the extractor plunger and extractor spring.

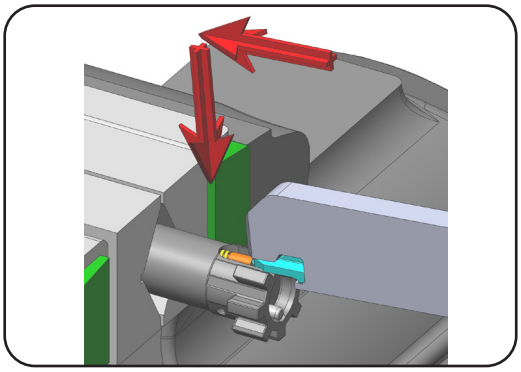
SAFETY ADVICE!	
⚠	SPRING MAY POP OUT WHEN EXTRACTOR IS REMOVED!



i. Clean the extractor groove and spring hole in the bolt head.
j. Remove dirt or /defective foreign particles, replace worn parts.
k. Insert the extractor spring and extractor plunger. The straight surface of the extractor plunger must face the firing pin.
l. Place the extractor in the mounting tool (BT-36850).

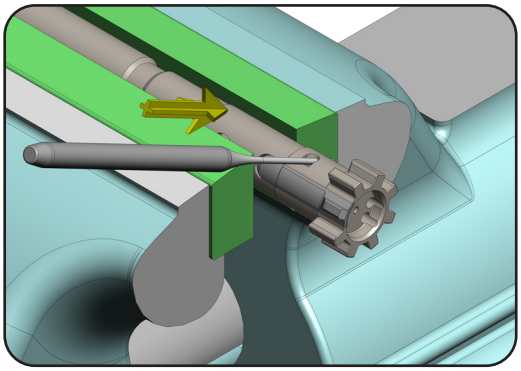


m. Push the extractor parallel to the firing pin axle into the locking head as far as it will go. Then press down until it locks into place. The extractor spring for the extractor is pretensioned.
n. Inspect the extractor. (see chapter 10.1.1 page 34)

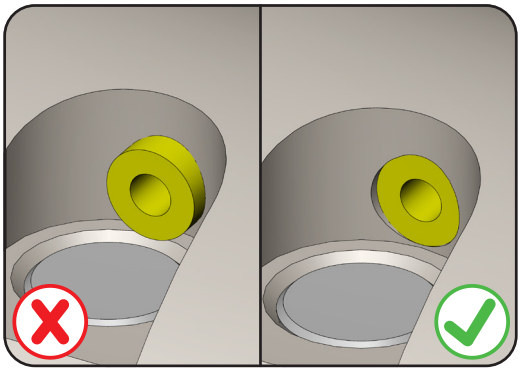


10.2.2 Replacing the extractor APC308

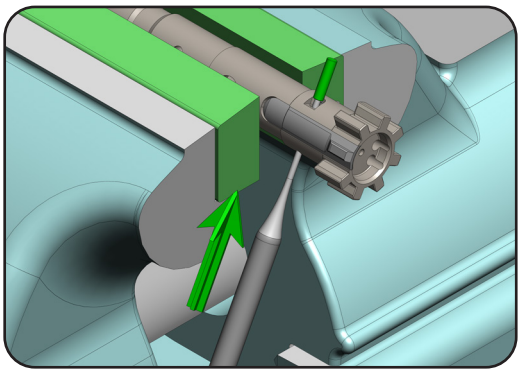
a. Fix the bolt head in a vice with jaws.
b. Remove the securing pin with a 1.5 mm punch.



Advice!	
	Drive the pin in until it is no longer in the cutout.

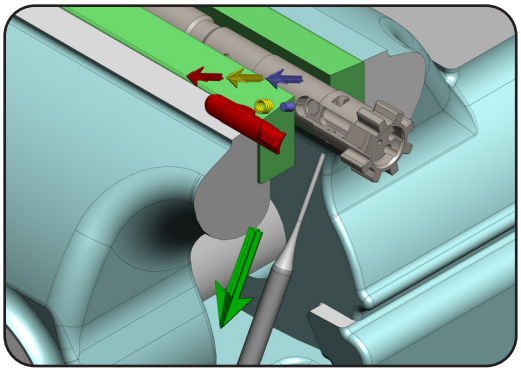


c. Push the extractor axle out with a 1.5mm punch (green)
   » Leave the punch in the hole.



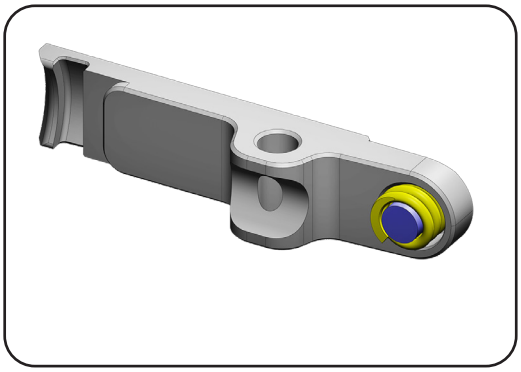
d. Carefully pull the punch out (green).

SAFETY ADVICE!	
⚠	The extractor spring is under high tension. If handled carelessly, the extractor may pop out when removing the punch.

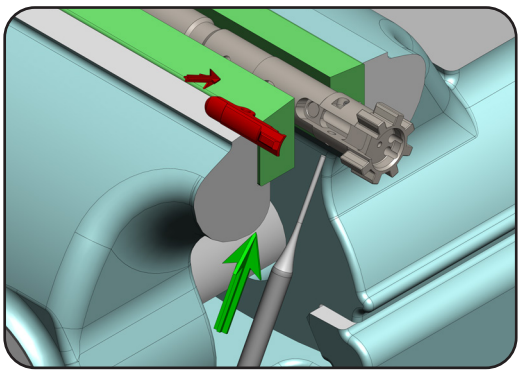


e. Remove the extractor (red), the extractor spring (yellow) and the rubber buffer (blue) from the bolt head.

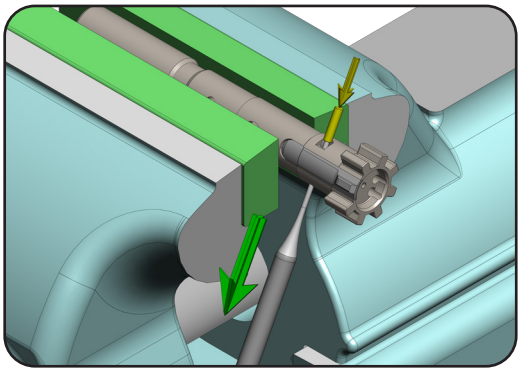
f. Remove dirt and foreign particles, replace worn/defective parts.
g. Insert the rubber buffer (blue) and the extractor spring (yellow) into the corresponding hole on the extractor.



h. Insert the extractor with extractor spring and rubber buffer into the bolt head (red) and secure the extractor with a 1.5mm punch in the bolt head, for this insert the punch from the side with the smaller hole (green)

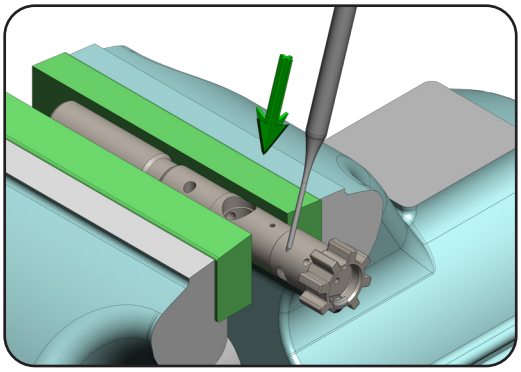


i. Insert the extractor axle from the side of the larger hole (yellow) and press the punch out of the bolt head with the extractor axle (green).

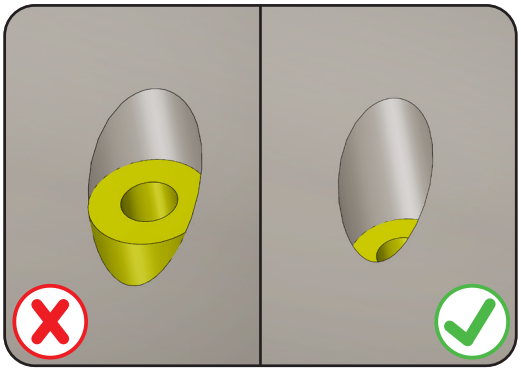


SAFETY ADVICE!	
⚠	The extractor spring is under high tension. If handled carelessly, the extractor may pop out when removing the punch.

j. Insert the securing pin with a 1.5 mm punch (green).



ADVICE!	
ⓘ	Drive the pin in until it is no longer in the cutout.



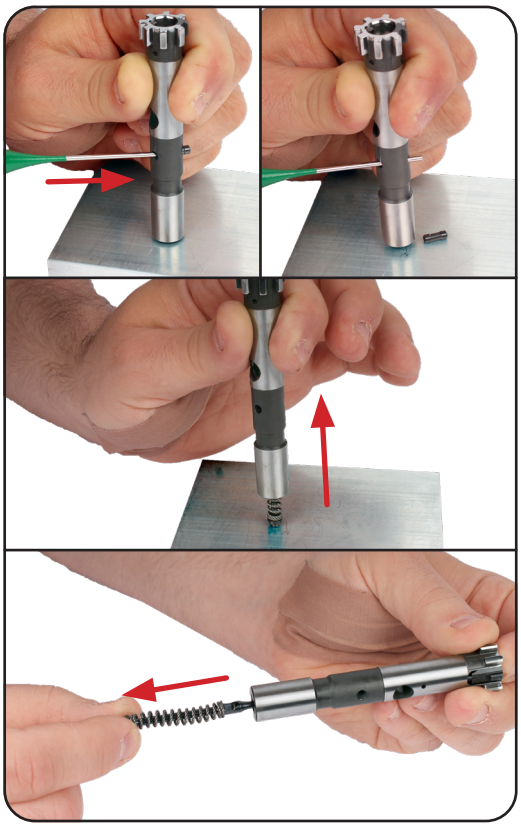
10.2.3 Changing the firing pin

a. Dismantle the weapon ("Operator manual)
b. Place the bolt head on a hard surface, with the end where the firing pin protrudes, and press it down as far as possible.

c. Use a punch to push the locking bolt out of the bolt head.

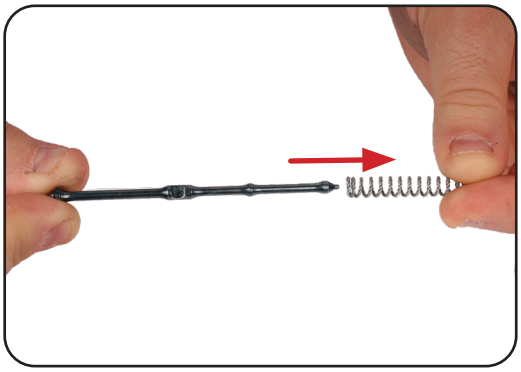
d. Carefully lift the bolt head until the tension on the firing pin spring is relieved.

e. Pull the firing pin out of the bolt head.

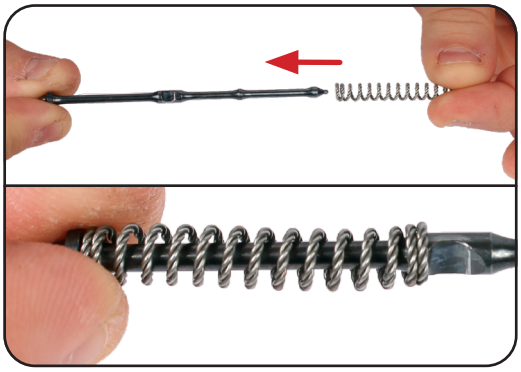


f. Pull the firing pin spring of the firing pin.

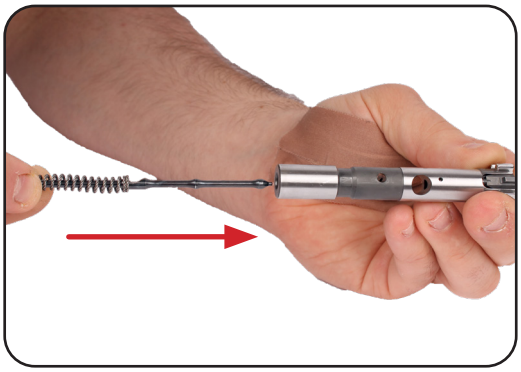
g. Remove dirt or foreign particles, replace worn parts.



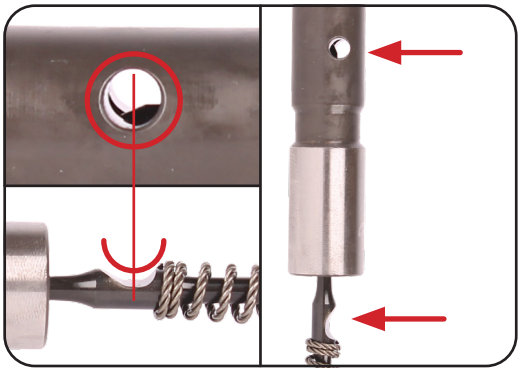
h. Slide the firing pin spring on the firing pin and push it over the dome.



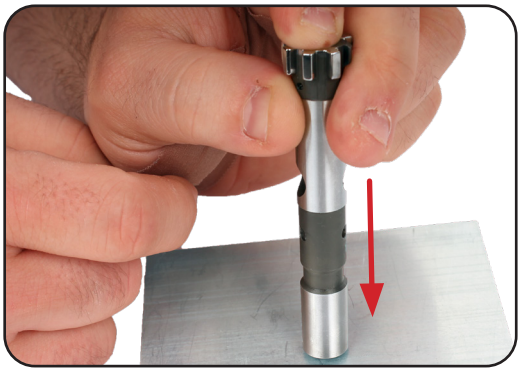
i. Insert the firing pin into the bolt head.



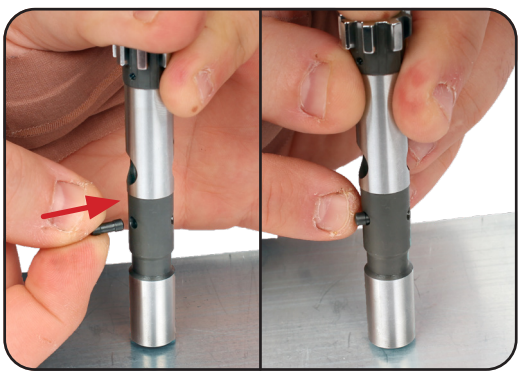
Advice	
	The cutout in the firing pin and the hole for the locking pin in the bolt head must be oriented before inserting.



j. Place the bolt head on a hard surface, with the end where the firing pin protrudes, and press it down as far as possible.

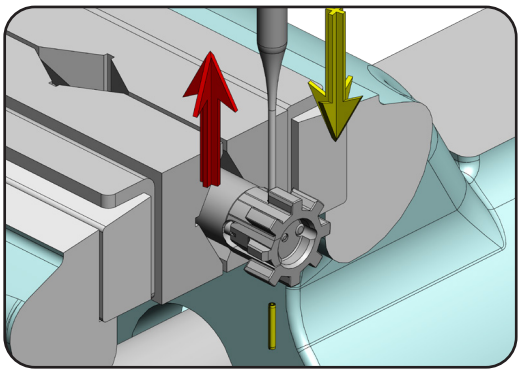


k. Push the locking bolt into the bolt head until it audibly engages in the end position.



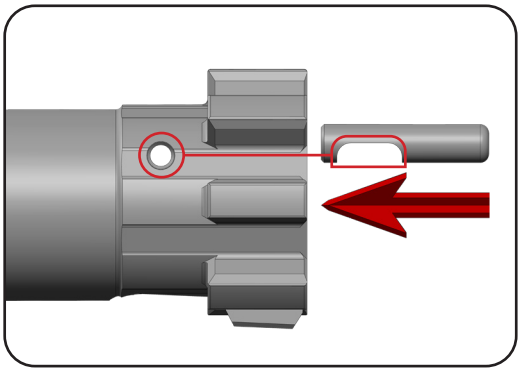
10.2.4 Replace the ejector

a. Disassemble the weapon.
   » Operator manual.
b. Fix the bolt head in a vice with prism jaws.
c. Drive out the ejector spring pin with a 1.5 mm punch. (yellow)
d. After the ejector spring pin has fallen out, carefully pull the punch out again (red) until the ejector is released and can be removed.

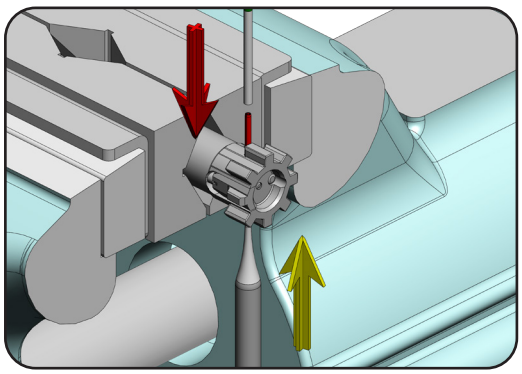


SAFETY ADVICE!	
⚠	THE EXTRACTOR SPRING IS UNDER HIGH TENSION, THE EXTRACTOR AND THE SPRING MAY POP OUT IF NOT HANDLED PROPERLY

e. Remove worn parts.
f. Install the ejector spring and ejector back into the bolt head.
g. Note the alignment of the ejector in the bolt head.

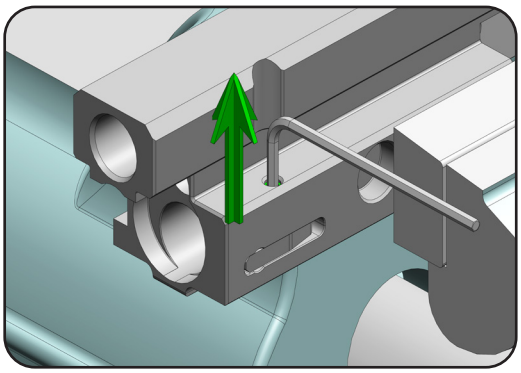


h. Push the ejector in so that it can be secured with a 1.5mm punch, which is pushed into the hole from below (yellow).
i. Insert the ejector pin into the hole from above (red) and tap it carefully.
j. Install the ejector pin so that it no longer protrudes from both sides of the bolt head

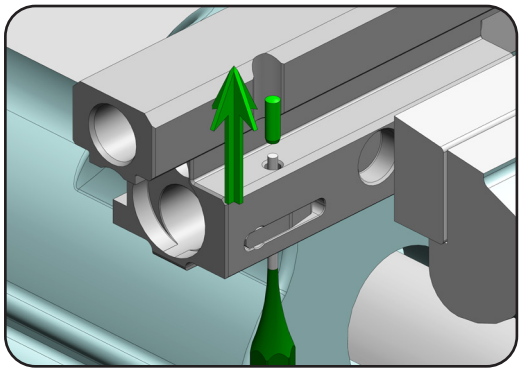


10.2.5 Replacing the bolt trap

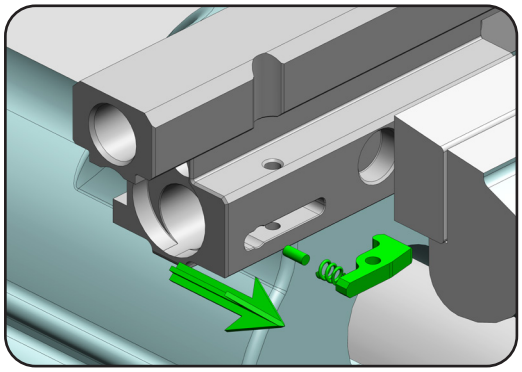
a. Disassemble the weapon.
   » Operator manual.
b. Clamp the bolt carrier in a vice.
c. Heat the screw of the bolt trap wiith a hot air gun and remove it. (Allen 3mm)



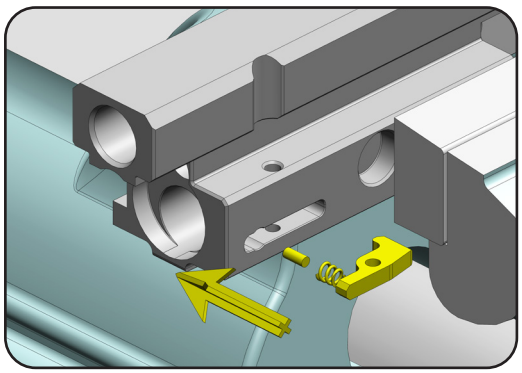
d. Push the trap axle from the bottom up with a 2.5 mm punch.



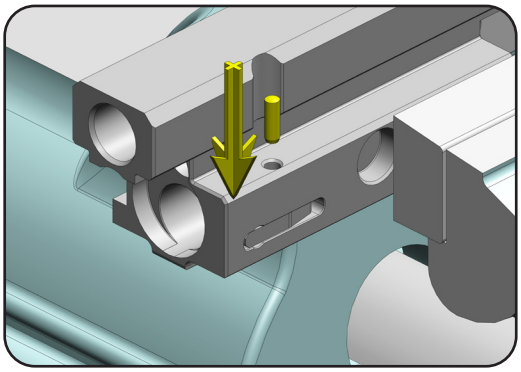
e. Carefully remove the punch downwards, securing the bolt trap by hand to prevent it from jumping out of the spring.
f. Replace worn parts.



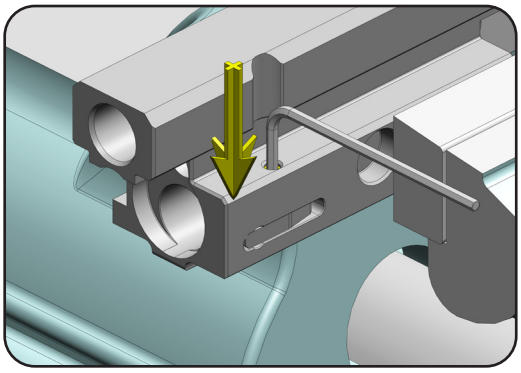
g. Install the buffer in the spring for the bolt trap, and install the compression spring and trap in the bolt carrier.



h. Insert the bolt trap axle and push it all the way down with a punch.



i. Degrease the threaded hole in the bolt carrier and the screw, then apply Loctite 243.
j. Install and tighten the screw. (Allen 2mm, 1.5 Nm)



11. Cleaning and inspection on the magazine

11.1 Inspections on the magazine

a. Visually check the lower receiver for heavy dirt accumulation.
   » Clean if necessary.
b. Visually inspect the lower receiver for cracks or fractures.
   » Replace magazine if present.
c. Check the magazine follower for free running in the magazine housing by pressing it down.
d. Insert the magazine into the removed lower receiver.
   » The magazine must be able to be inserted without resistance.
   » The magazine should engage in the magazine retainer.

   If either condition is not met, repeat with other magazines. If the result is the same, check the handle.
   When working with the other magazines, lock the first magazine for use.

10.3 Measures on the magazine

10.3.1 Disassembly magazine/replace parts

a. Magazines from third-party manufacturers are used; the operating instructions of the third-party manufacturer must be observed for maintenance of the magazines.

SAFETY ADVICE!	
	THE MAGAZINE SPRING AND FLOORPLATE ARE UNDER HIGH PRELOAD AND CAN SNAP OUT. COVER THE MAGAZINE FLOORPLATE AND THE BOTTOM OF THE MAGAZINE OPENING WITH YOUR HAND DURING THE ENTIRE DISASSEMBLY PROCESS.

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12. Inspections and measures on lower receiver

12.1 Inspections

12.1.1 General inspections on magazine retainer and bolt catch

a. Disassemble the weapon.
   » Operator manual.
b. Visually check the lower receiver for heavy dirt accumulation.
   » Clean if necessary.
c. Visually inspect the lower receiver for cracks or fractures.
   » Replace if existing.
d. Visually inspect the lower receiver for rust.
   » If present, replace the respective parts.
e. Try to pull out the take down pins to the right.
   » The take down pins should be held in the receiver.
f. Push the take down pins in to the left.
   » It should be possible to push the take down pins in completely with a minimum of force.
g. Press the bolt catch upwards at the front lug and at each of the two knobs and release it again.
   » It should be possible to move the bolt catcher slightly upwards.
   » The bolt catch should return automatically to the bottom end position.
h. Press the magazine knob on the right and left in sequence.
   » It should be possible to move the magazine retainer to the right and left end positions.
   » The magazine nose should no longer protrude into the magazine chute in the end position.
i. Insert an empty magazine.
   » It should be possible to insert the magazine smoothly.
   » The magazine should engage in the magazine retainer.
   » The slide catch should be pushed up by the follower in the magazine.
j. Press the magazine knob on the right.
   » The magazine should be released and fall out.
k. Load and insert a magazine with a dummy cartridge / manipulating cartridge.
   » The follower should not push up the bolt catch.
l. Press the magazine knob on the left.
   » The magazine should be released and fall out.

12.1.2 Inspection on semi auto trigger

a. Move the fire selector lever to both positions and back.
   » The fire selector lever should move smoothly.
   » The fire selector lever should engage audibly in both positions.
b. Set the fire selector lever to single fire, place the thumb on the hammer. Pull the trigger and hold it pulled, guiding the hammer forward.
   » The hammer should be released from the trigger.
   » The hammer should move to the front end position without sticking.

c. With the trigger pulled, push the hammer backward.
   » The hammer should engage in the disconnector.
d. Release the trigger.
   » The hammer should slide from the disconnector rest into the trigger rest and be held there.
e. Set the fire selector lever to safe, pull the trigger.
   » The trigger should move smoothly, up to the break point.
   » The trigger should not release the hammer.

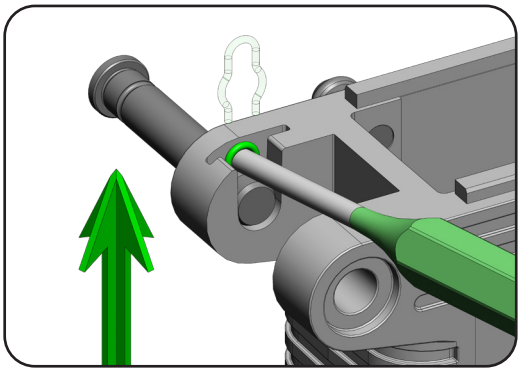
12.1.3 Inspection on full auto trigger

a. Move the fire selector lever all positions and back.
   » The fire selector lever should move smoothly.
   » The fire selector lever should engage audibly in all positions.
b. Set the fire selector lever to single fire, place the thumb on the hammer. Press the release lever.
   » The hammer should slide from the sear notch into the trigger notch and be held there.
c. Pull the trigger and hold it pulled, guiding the hammer forward.
   » The hammer should be released from the trigger.
   » The hammer should move to the front end position without sticking.
d. With the trigger pulled, push the hammer backward.
   » The hammer should engage on the sear notch.
e. With the trigger pulled, operate the release lever.
   » The hammer should slide from the sear notch into the disconnector notch and be held there.
f. Release the trigger.
   » The hammer should slide from the disconnector notch into the trigger notch and be held there.
g. Set the fire selector lever to full auto, place the thumb on the hammer and pull the trigger.
   » The hammer should be released from the trigger.
h. With the trigger pulled, push the hammer backward.
   » The hammer should engage on the sear notch.
i. With the trigger pulled, place the base of the thumb on the hammer and operate the release lever with the tip of the thumb, guiding the hammer forward.
   » The hammer should be released.
j. Release the trigger, set the fire selector lever to safe, cock the hammer, push the release lever and then pull the trigger.
   » The trigger should move smoothly, up to the break point.
   » The trigger should not release the hammer.

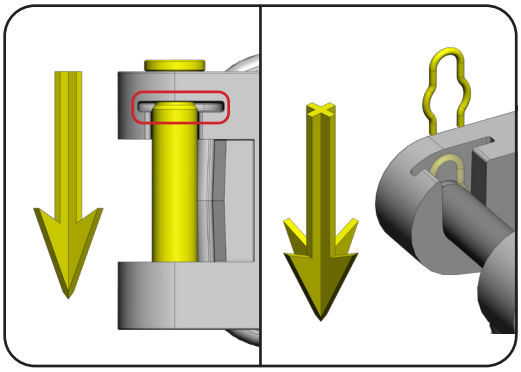
12.2 Measures

12.2.1 Replacing the take down pins

a. Disassemble the weapon.
   » Operator manual.
b. Use a 3mm punch to remove the take down pin springs.
c. Remove the take down pin
d. Remove dirt or foreign particles, replace worn parts.

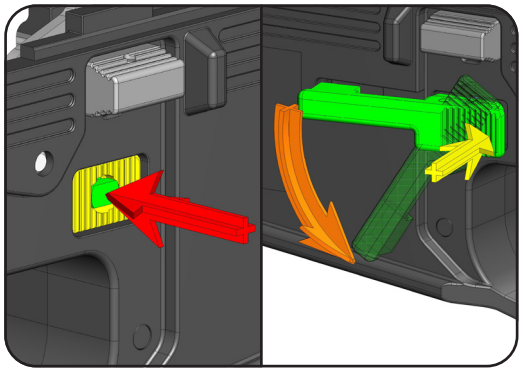


e. Insert the take down pin completely into the recevier so that the grooves in the take down pin and receiver are aligned with each other.
f. Insert the spring for the take down pin into the groove from above.
g. Press the spring down until it engages in the groove on the take down pin.

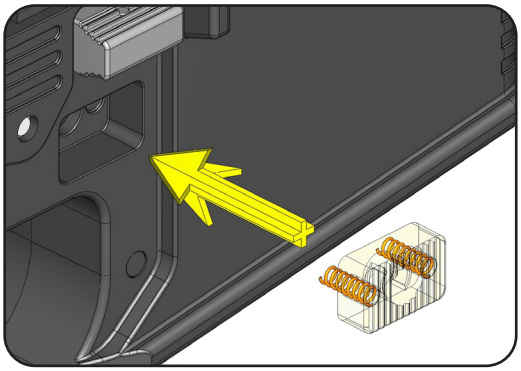


12.2.2 Replacing the magazine catch

a. Push the magazine retainer knob all the way in and hold it in this position.(red)
b. Push the magazine retainer in (yellow) and lift it slightly at the front end. At the same time, rotate down 90 degrees. (orange)
c. Remove the magazine retainer, release button and springs.
d. Remove dirt or foreign particles, replace worn parts.

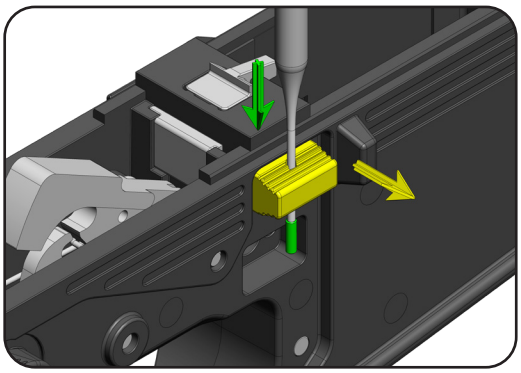


e. Insert the springs into the magazine retainer knob.
f. Insert the magazine retainer knob into the lower receiver and keep it pressed. (yellow)
g. Install the magazine retainer in the reverse order as described above.

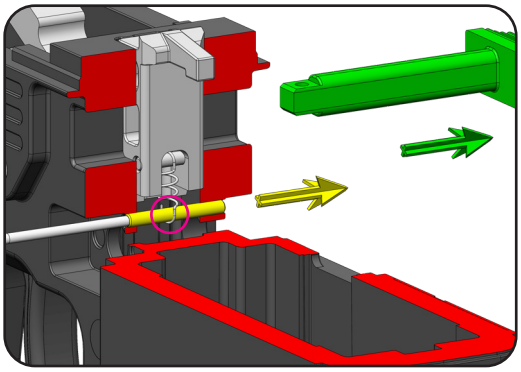


12.2.3 Replacing the bolt catch lever

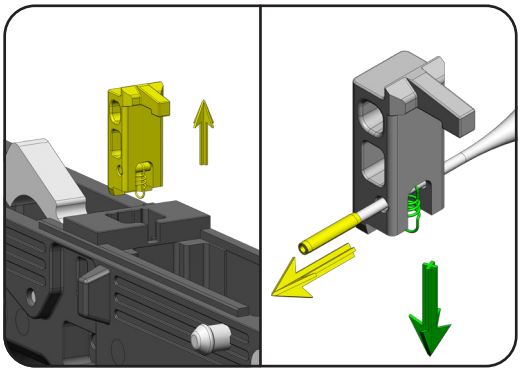
a. Remove the magazine retainer. (see chapter 12.2.2 page 48)
b. Remove the cylinder pin with a 1.5 mm punch. (green)
c. Remove the right bolt catch lever. (yellow)



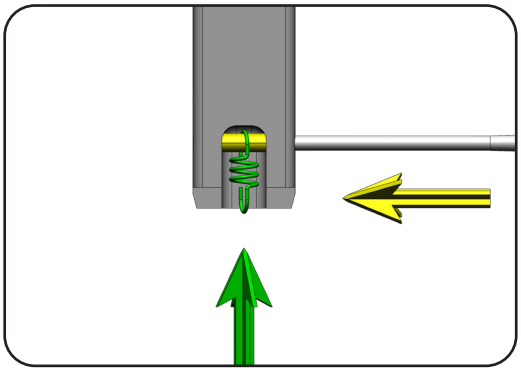
d. Remove the left bolt catch lever. (green)
e. Remove the cylinder pin with a 1.5 mm punch. (yellow)
   » Take care not to damage the bolt catch spring when knocking in the punch



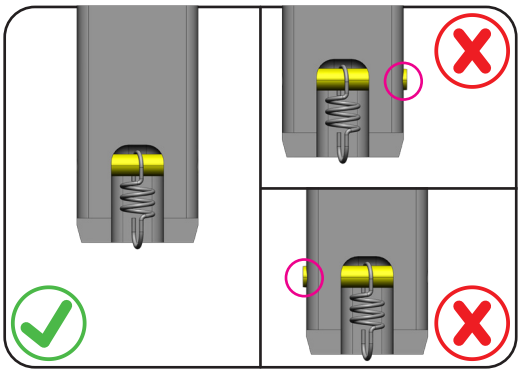
f. Remove the bolt catch from upper receiver. (yellow)
g. Remove the roll pin with a 1.5 mm punch. (yellow)
h. Remove the spring from the bolt catch (green)
i. Remove dirt or foreign particles, replace worn parts.



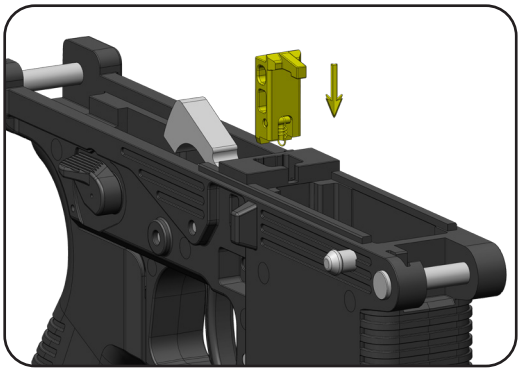
j. Insert the bolt catch spring into the bolt catch. (green)
k. Install the roll pin in the bolt catch with a punch (yellow)



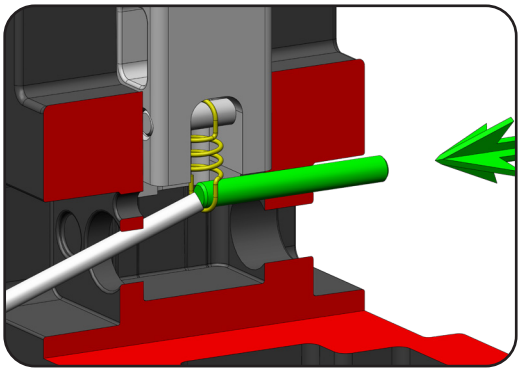
» Make sure that the roll pin does not protrude from the side of the bolt catch



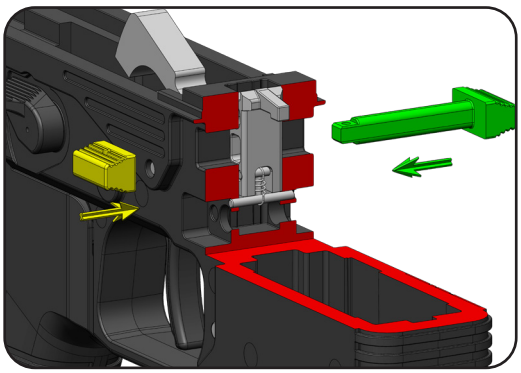
l. Insert the bolt catch into the lower receiver.



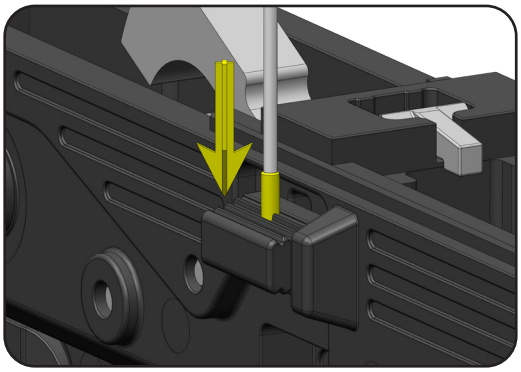
m. Insert the parallel pin into the handle from left to half. (yellow)
n. Insert a punch through the right hole for the magazine retainer into the lower hook of the bolt catch spring.
o. Place the bolt catch spring over the parallel pin using a punch.
p. Insert the parallel pin fully into the lower receiver.
» Make sure the bolt catch spring is held by the parallel spring.



q. Insert the left bolt catch lever into the lower receiver. (green)
r. Check the function of the bolt catch by pushing the left bolt catch lever upwards and check that it is pulled down again by the spring
s. Insert the right bolt catch lever into the lower receiver. (yellow)

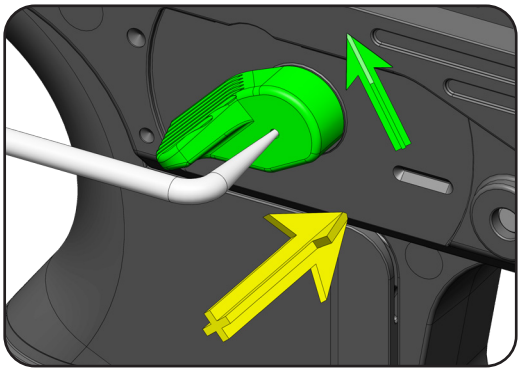


t. Insert the parallel pin into the right bolt catch lever and tap it with a 1.5mm punch
u. Check the assembly for proper operation.
v. Reinstall the magazine retainer (see chapter 12.2.2 page 48)



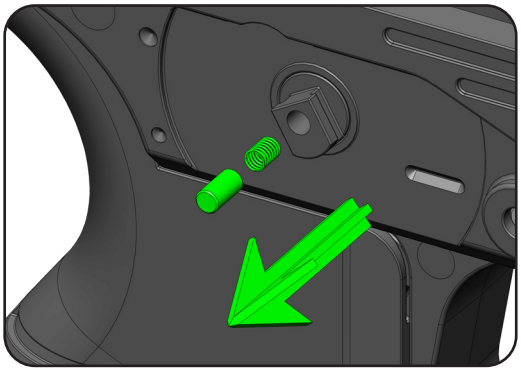
12.2.4 Replacing the fire selector

a. Cock the hammer
b. Set the fire selector lever to single fire
c. Using the mounting hook, push the fire selector lever retaining pin through the small hole in the right fire selector lever and keep it pressed. (yellow)
d. Push fire selector lever to the left-up. (green)



Advice	
	The retaining pin and its spring may pop out when the fire selector lever is removed

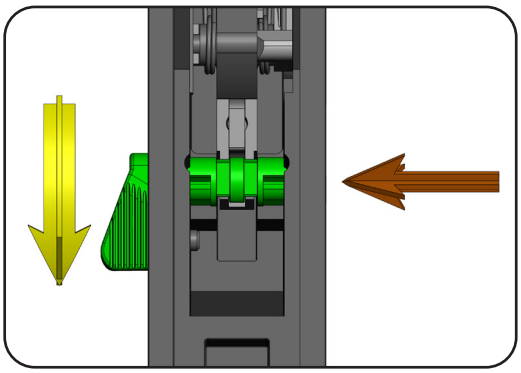
e. Remove retaining pin for fire selector lever and its spring.



f. Set the fire selection lever to safe.

g. Press the right side of the fire selector lever (orange) and simultaneously rotate the fire selector lever from safe to semi auto. (yellow)

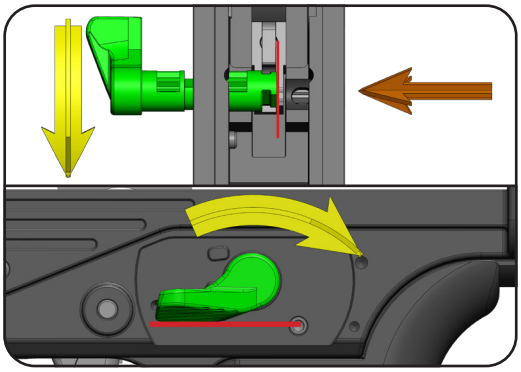
» The fire selector lever should jump from the position to the left during the transition from safe to semi auto.



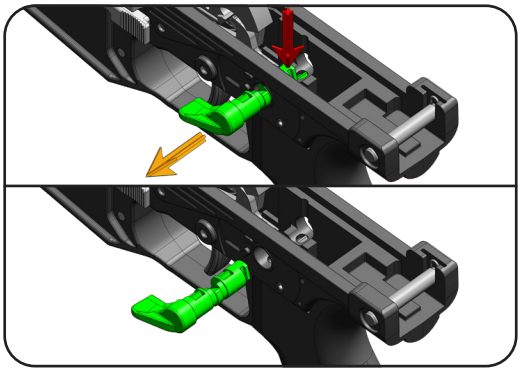
Advice	
	The detents and their spring can pop out when the fire selector lever is removed

h. Continue to rotate the fire selection lever and pull it to the left.

» When the end of the fire selector lever is in the middle of the handle, the lever should be rotated 180°.

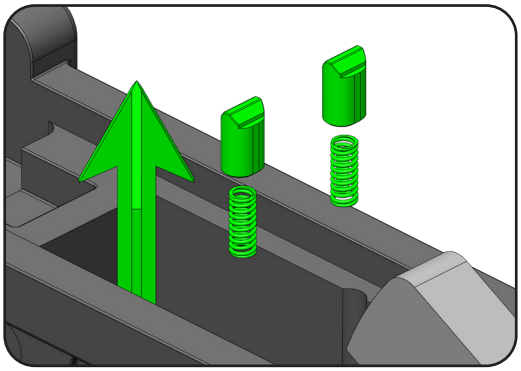


i. Pull the fire selector lever to the left out of the housing (orange), pressing on the fire selector lever from above in the middle of the lower receiver. (red)

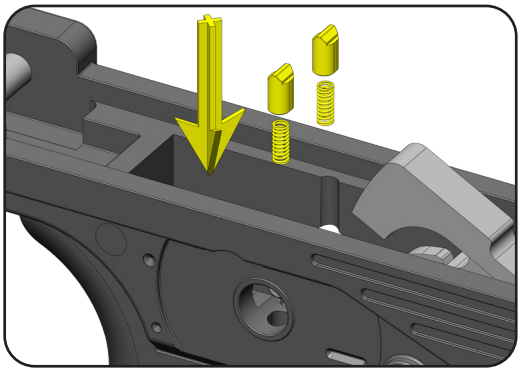


j. Remove the detents and their springs from the lower receiver.

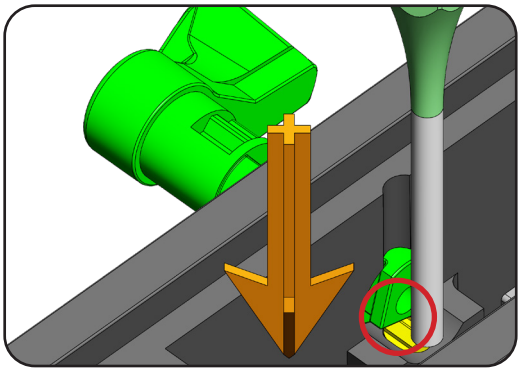
k. Remove dirt or foreign particles, replace worn parts.



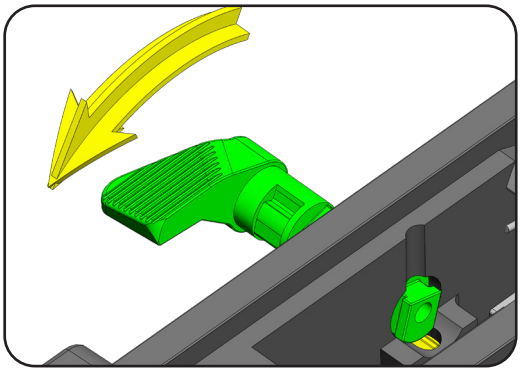
l. Insert the detents and their springs into the lower receiver.



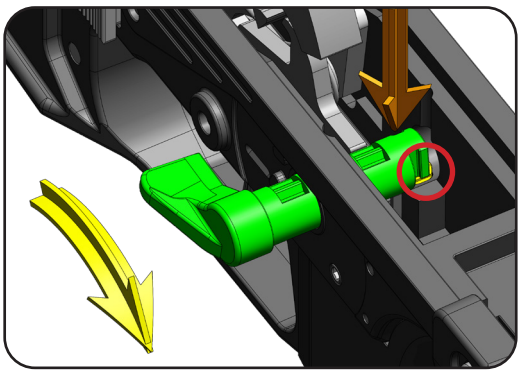
m. Insert the fire selector lever into the lower receiver from the left.
n. Use a punch to press the left detent downward (orange) so that the straight surface on the fire selector lever slides over the detents.



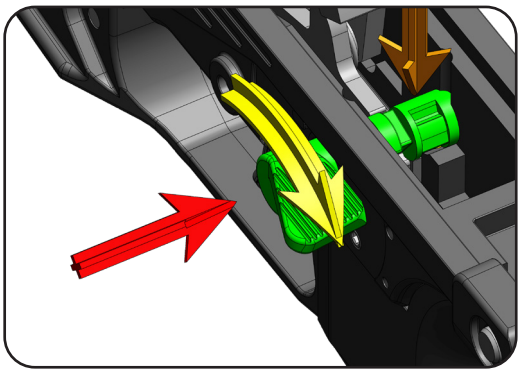
o. Rotate the fire selector lever until the left detent is on the round surface.



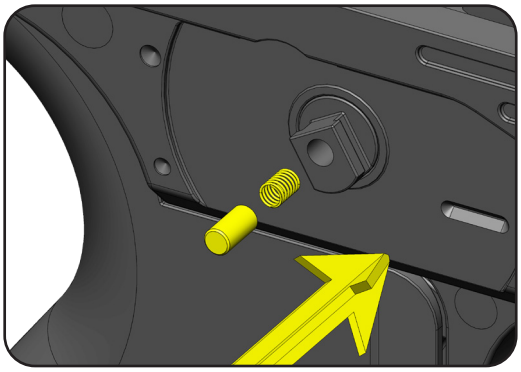
p. Push the fire selector lever to the right until it is in contact with the right side detent.
q. Rotate the fire selector lever (yellow) and tilt it so that the straight surface on the fire selector lever slides over the right side detent.
r. Rotate the fire selector lever (yellow), while pressing the lever inside downward (orange), until the detent piece is on the round surface.



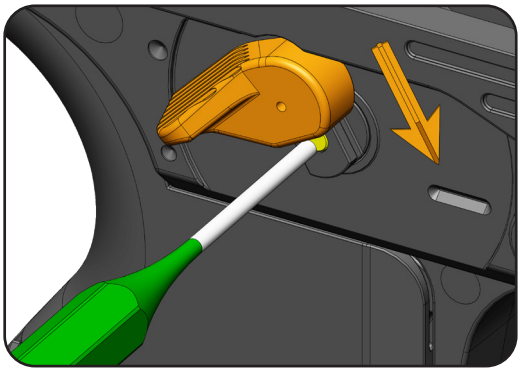
s. Continue to rotate the fire selector lever (yellow) while pushing the lever down inside (orange) and continue to push the fire selector lever to the right (red) until it slides into the hole on the right side of the lower receiver.



t. Set the fire selector lever to single fire
u. Insert the retaining pin and its spring.

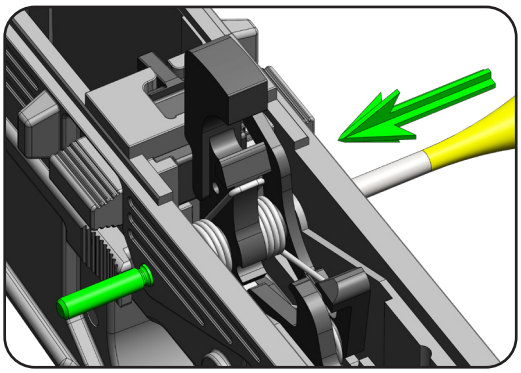


v. Press the holding pin flush into the fire selector lever with a punch and hold it like this.
w. Slide the right fire selector lever over the fire selector lever until it audibly engages in its end position.

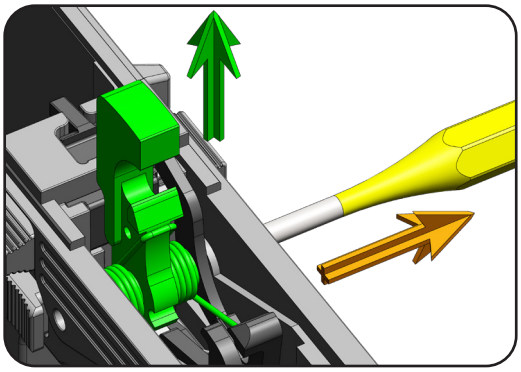


12.2.5 Changing hammer fully automatic

a. Place the thumb on the hammer. Pull the trigger while guiding the hammer forward.
b. Using a 4 mm punch, slide the hammer axis out of the lower receiver from right to left.
   » Leave the punch in place.

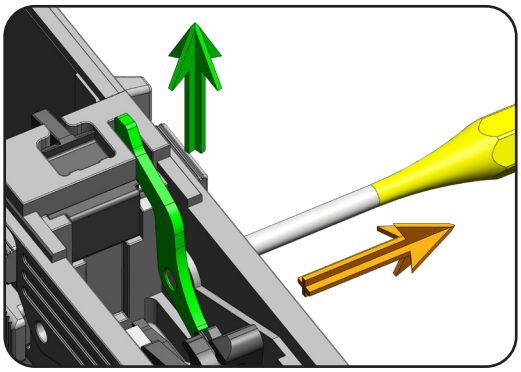


c. Carefully pull the punch out of the lower receiver to the right (orange). Hold the hammer and remove it from the lower receiver as soon as it comes free. (green)

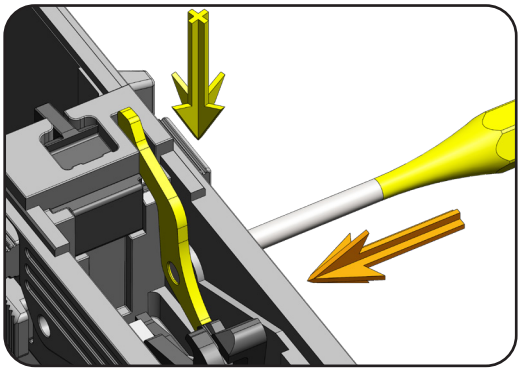


SAFETY ADVICE!	
	The hammer spring is under great tension, if handled without care, the hammer can spring out when the punch is removed.

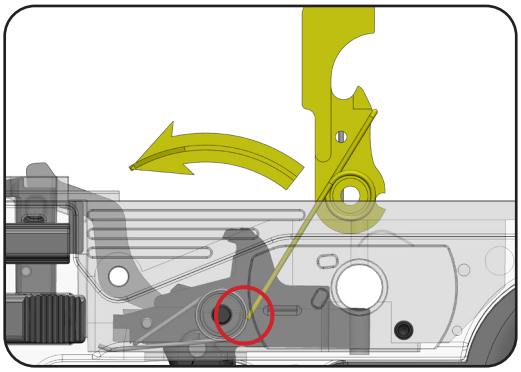
d. Pull the punch further to the right (orange).
e. As soon as the release lever comes free, remove it upwards from the lower receiver. (green)
f. Remove dirt and foreign particles, replace worn/defective parts.



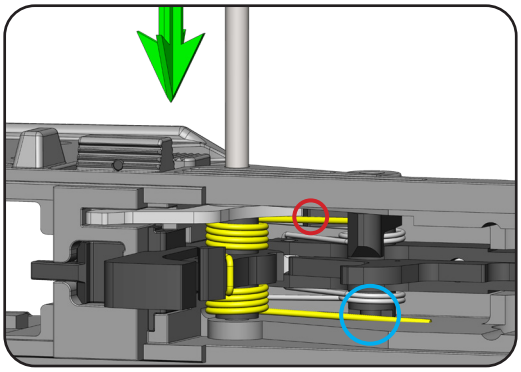
g. Insert the release lever into the lower receiver from above (yellow).
h. From the right, insert a 3mm punch through the hammer axis hole into the corresponding hole on the release lever.
   » For the next step, make sure that the punch does not protrude beyond the release lever.



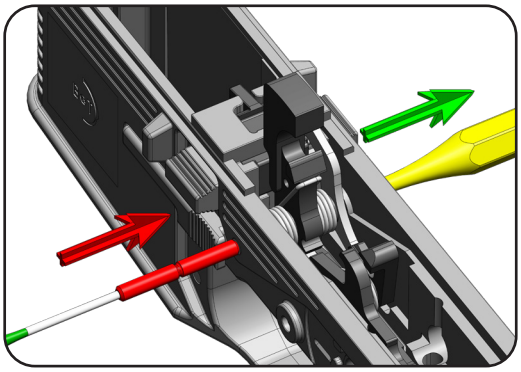
i. Position the hammer at the top behind the trigger axis.
   » The legs of the hammer spring must be in contact with the rear of the trigger.
j. Move the hammer in a circular motion over the disconnector to reach the mounting position.



k. Push the punch through the axis of the hammer to hold it in position.
l. The longer leg of the hammer spring must be positioned in the cutout of the trigger. (blue)
m. The shorter leg of the hammer spring must be positioned in the groove of the sear. (red)



n. Insert hammer axle from the left into the respective hole on the lower receiver and push through (red). Hold the hammer in position.
   » When pushing the axle through, the punch, which is inserted from the right, is pushed out to the right.

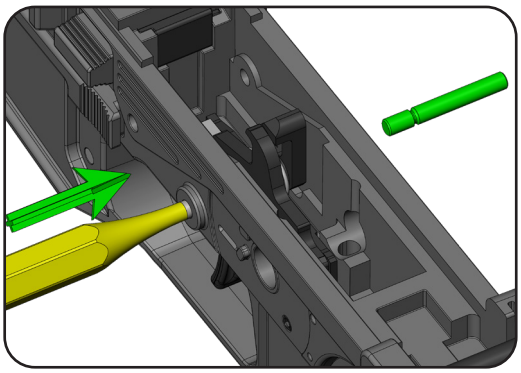


SAFETY ADVICE!	
⚠	The hammer spring is under great tension; if handled without care, the hammer may spring out when the axle is pushed through.

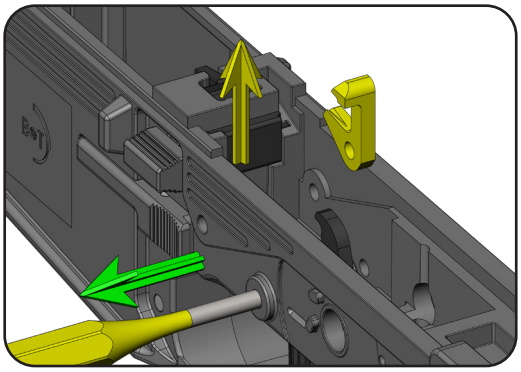
o. Position the hammer axle centrally in the lower receiver.
p. Apply light pressure from both sides to the hammer and trigger axis with a punch.
   » The hammer axis is held in position by the locking spring in the hammer.
   » The trigger axis is held in position by the hammer spring.

12.2.6 Changing the trigger fully automatic

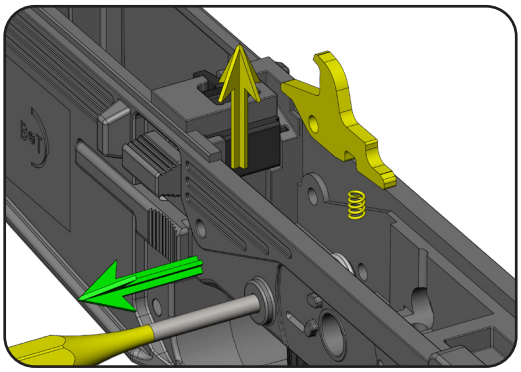
a. Remove the fire selector (see chapter 12.2.4 page 51).
b. Remove the hammer (see chapter 12.2.5 page 55).
c. Using a 4 mm punch, push the trigger axis out of the lower receiver from the right to the left.
   » Leave the punch in place.



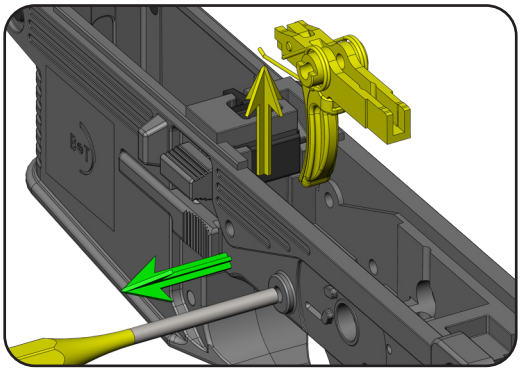
d. Pull the punch to the left out of the lower receiver (green). As soon as the sear comes free, remove it upwards from the lower receiver. (yellow)



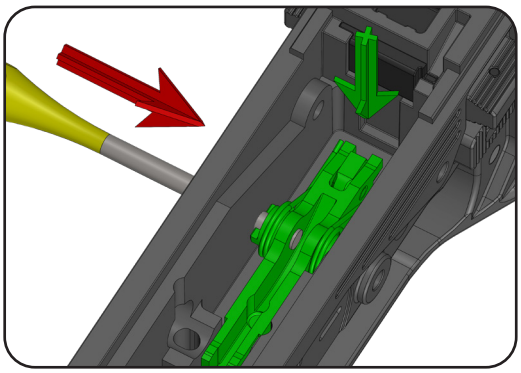
e. Pull the punch further to the left out of the lower receiver (green). As soon as the disconnector comes free, remove it and the disconnector spring upwards from the lower receiver. (yellow)



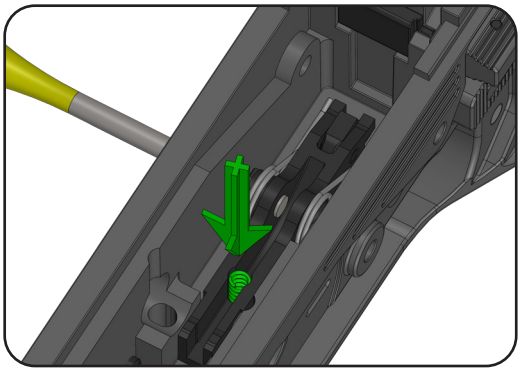
f. Pull the punch further to the left out of the lower receiver (green). As soon as the trigger is released, remove it upwards from the lower receiver. (yellow)
g. Remove any dirt and foreign particles, replace worn/defective parts.



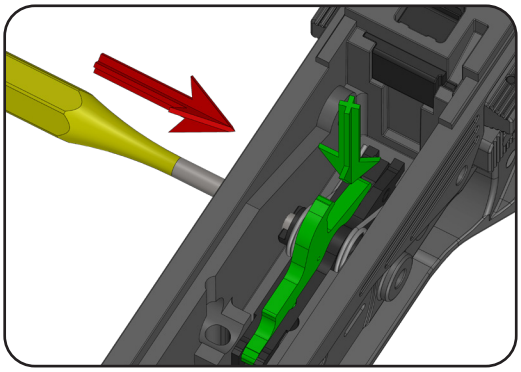
h. Insert the trigger into the lower receiver from above.
i. Insert a 3mm punch from the right through the trigger axis hole into the corresponding hole on the trigger.
   » For the next step, make sure that the punch does not protrude into the groove of the trigger.



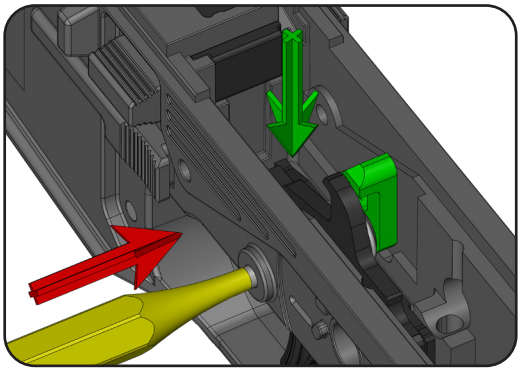
j. Position the disconnector spring in the trigger.



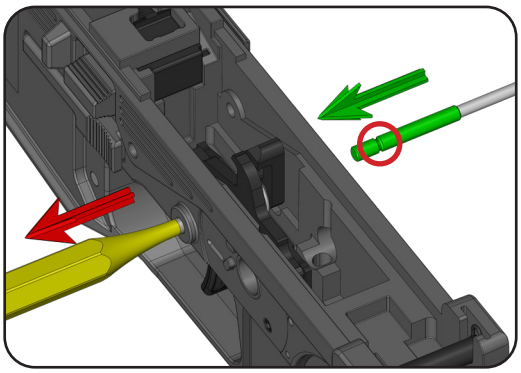
k. Position the disconnector in the trigger and secure it with the punch.



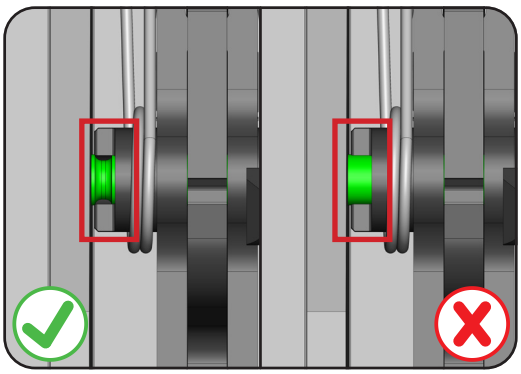
l. Position the sear in the lower receiver and secure it with the punch.



m. Insert the trigger axis into the lower receiver from the right.
   » Make sure that the groove on the trigger axis is positioned correctly. (groove first)
n. Push the trigger axis through and position it centrally.

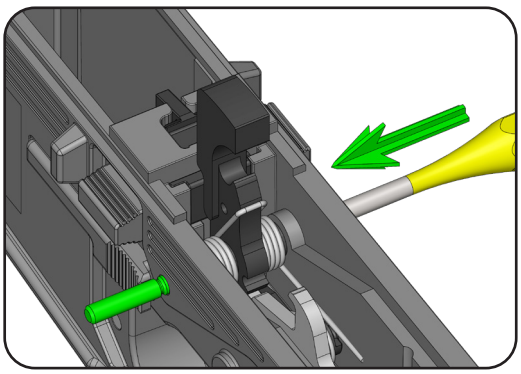


o. Check whether the groove on the trigger axis is positioned centrally in the cutout of the trigger.
   » If not, push the axis sideways or check the installation orientation.
p. Install the hammer (see chapter 12.2.5 page 55).
q. Install the fire selector (see chapter 12.2.4 page 51).

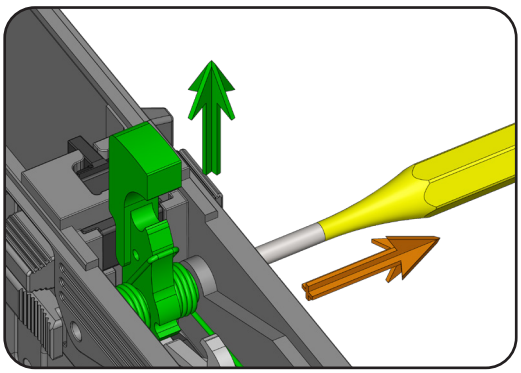


12.2.7 Changing the hammer semi-automatic

a. Place the thumb on the hammer. Pull the trigger while guiding the hammer forward.
b. Using a 4 mm punch, slide the hammer axis out of the lower receiver from right to left.
   » Leave the punch in place.

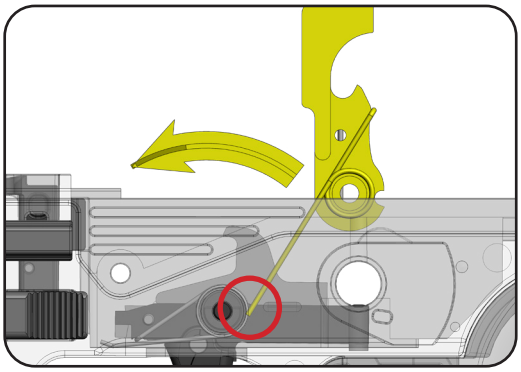


c. Carefully pull the punch out of the lower receiver to the right (orange). Hold the hammer and remove it from the lower receiver as soon as it comes free. (green)

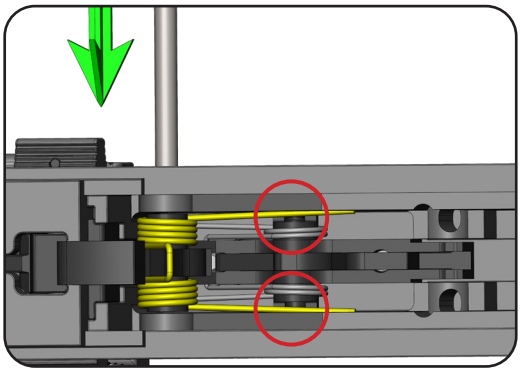


SAFETY ADVICE!	
⚠	The hammer spring is under great tension, if handled without care, the hammer can spring out when the punch is removed.

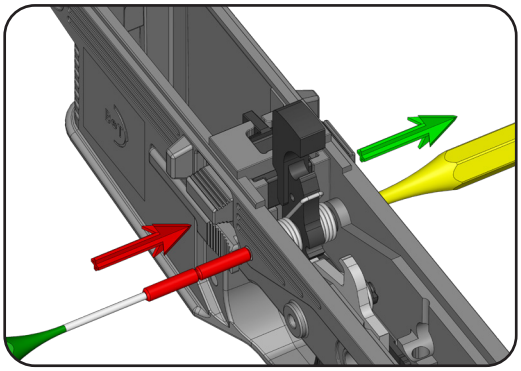
d. Remove dirt and foreign particles, replace worn/defective parts.
e. Position the hammer at the top behind the trigger axis.
   » The legs of the hammer spring must be in contact with the rear of the trigger.
f. Move the hammer in a circular motion over the disconnector to reach the mounting position.



g. Push a 3mm punch through the whole in the lower receiver and the hammer axis to hold it in position.
h. The both legs of the hammer spring must be positioned in the corresponding cutout of the trigger.



i. Insert hammer axle from the left into the respective hole on the lower receiver and push through (red). Hold the hammer in position.
   » When pushing the axle through, the punch, which is inserted from the right, is pushed out to the left.

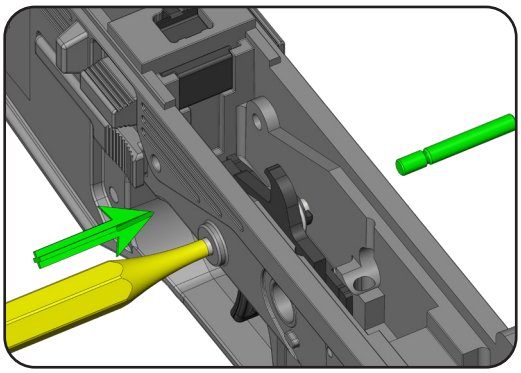


SAFETY ADVICE!	
⚠	The hammer spring is under great tension; if handled without care, the hammer may spring out when the axle is pushed through.

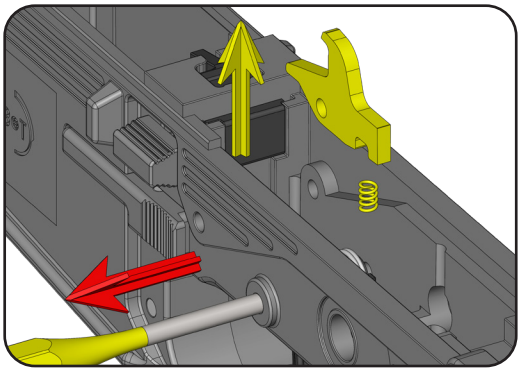
j. Position the hammer axle centrally in the lower receiver.
k. Apply light pressure from both sides to the hammer and trigger axis with a punch.
   » The hammer axis is held in position by the locking spring in the hammer.
   » The trigger axis is held in position by the hammer spring.

12.2.8 Changing the trigger semi-automatic

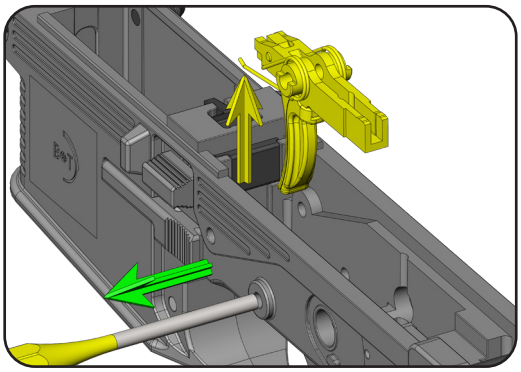
a. Remove the fire selector (see chapter 12.2.4 page 51).
b. Remove the hammer (see chapter 12.2.7 page 59).
c. Using a 3 mm punch, slide the hammer axis out of the lower receiver from right to left.
   » Leave the punch in place.



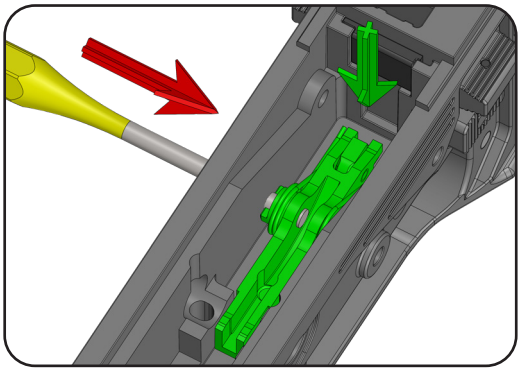
d. Pull the punch to the right out of the lower receiver (green). As soon as the disconnector comes free, remove it and also the disconnector spring upwards from the lower receiver. (yellow)



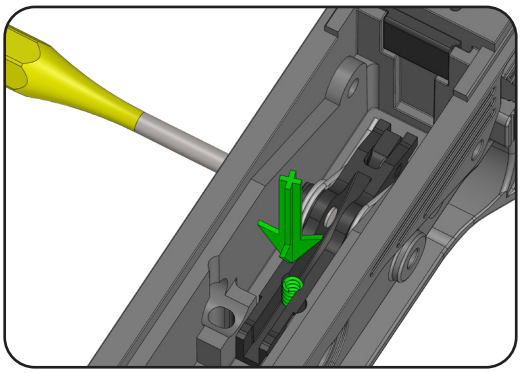
e. Pull the punch further to the right out of the lower receiver (green). As soon as the trigger is released, remove it upwards from the lower receiver. (yellow)
f. Remove any dirt and foreign particles, replace worn/defective parts.



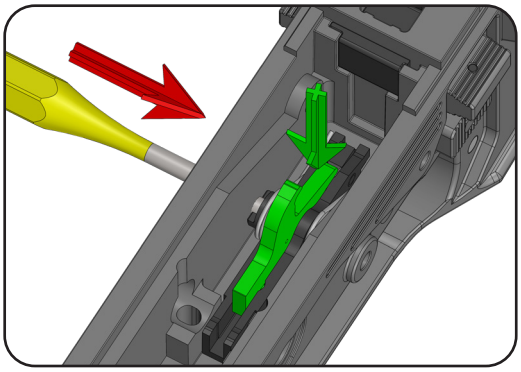
g. Insert the trigger into the lower receiver from above.
h. Insert a 3mm punch from the left through the trigger axis hole into the corresponding hole on the trigger.
   » For the next step, make sure that the punch does not protrude into the groove of the trigger.



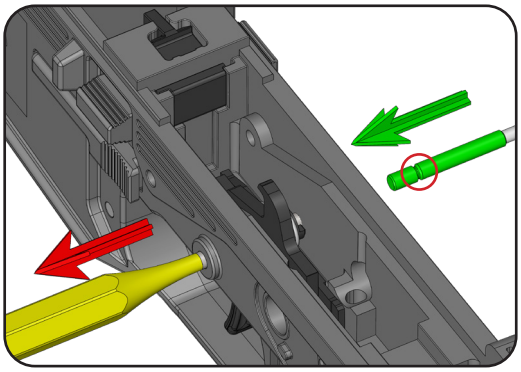
i. Position the disconnector spring in the trigger.



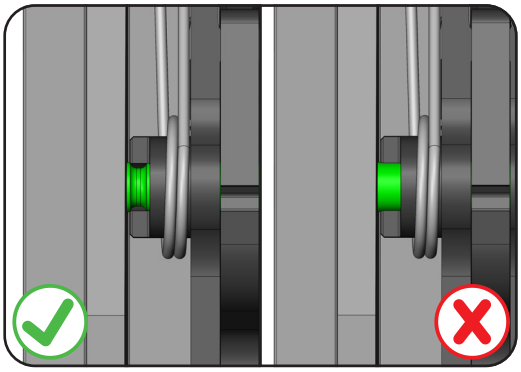
j. Position the disconnector in the trigger and secure it with the punch.



k. Insert the trigger axis into the lower receiver from the right.
   » Make sure that the groove on the trigger axis is positioned correctly. (groove first)
l. Push the trigger axis through and position it centrally.

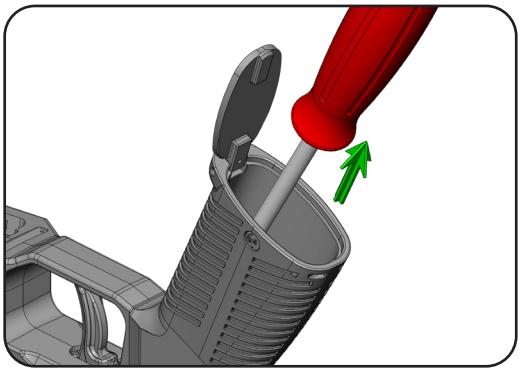


m. Check whether the groove on the trigger axis is positioned centrally in the cutout of the trigger.
   » If not, push the axis sideways or check the installation orientation.
n. Install the hammer.(see chapter 12.2.5 page 55) Install the fire selector. (see chapter 12.2.4 page 51)

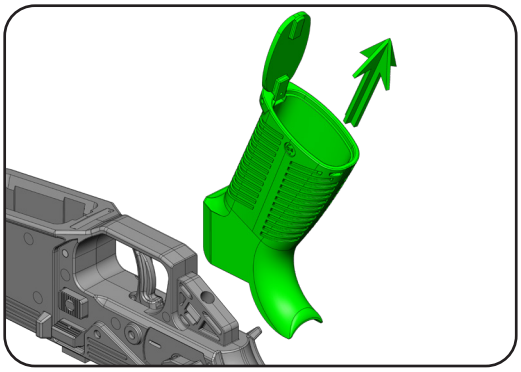


12.2.9 Changing the grip

a. Open the grip cover (»Operating Instructions).
b. Unscrew the grip screw using a suitable screwdriver (slot or Torx).

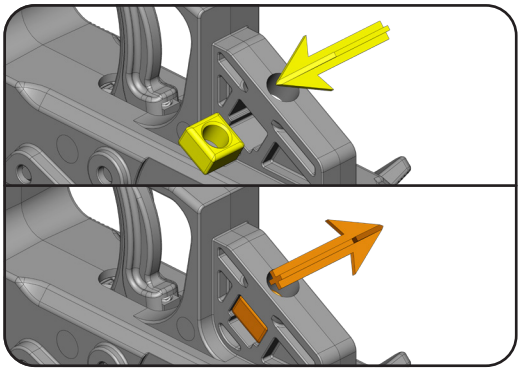


c. Pull the grip off the lower receiver.

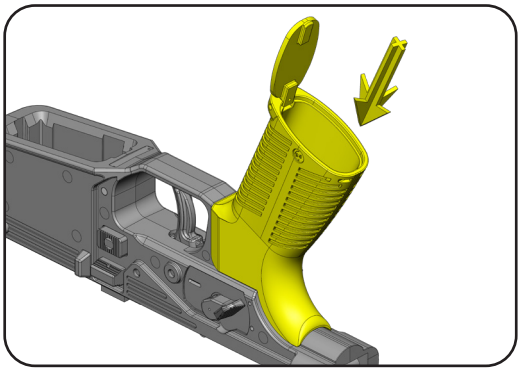


d. Remove the grip nut from the lower receiver.
e. Remove any dirt and foreign particles, replace worn/defective parts.

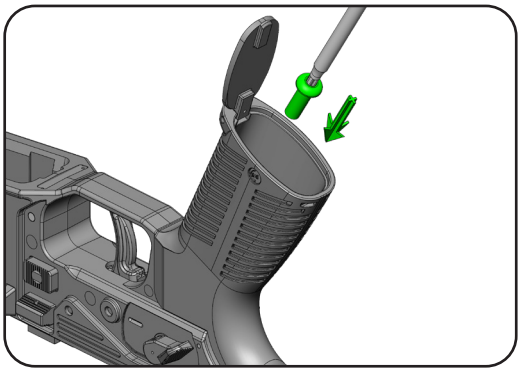
f. Insert the grip nut into the lower receiver.



g. Push the grip onto the lower receiver.

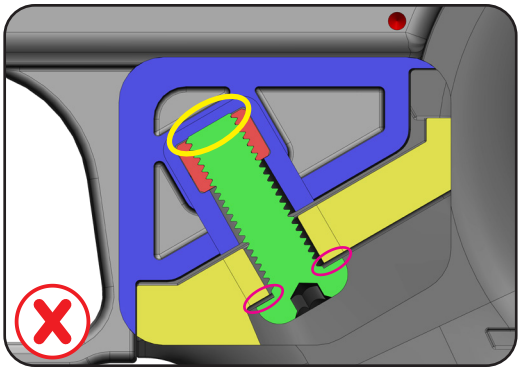


h. Screw in the grip screw and tighten to a maximum of 5 Nm.
i. Check whether the grip is firmly seated on the lower receiver.

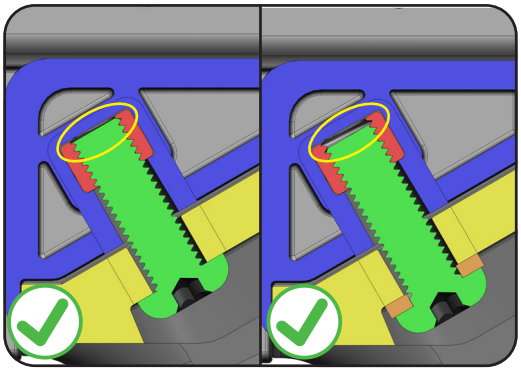


Advice
If the screw is tightened with more than 5 Nm because the grip is not tight, the lower receiver can be damaged.

j. If the grip still wobbles, the screw for the grip is too long and is in contact with the lower receiver.

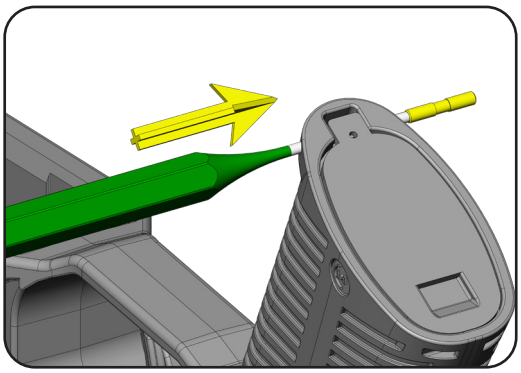


k. If the screw is in contact with the lower receiver, either install a shorter screw or a washer.

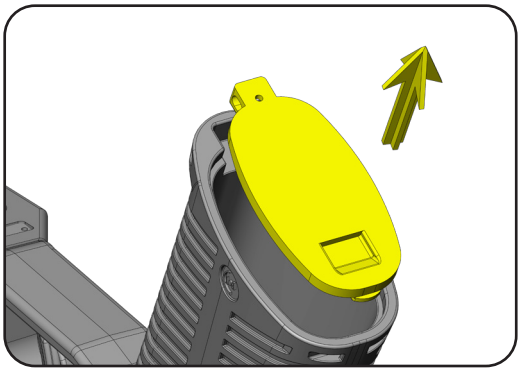


12.2.10 Changing the grip cover

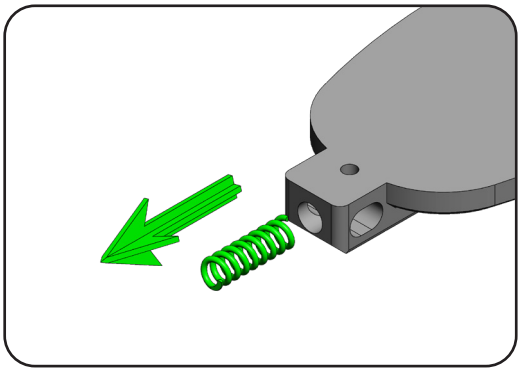
a. Remove the pin for the grip cover using a 2.5 mm punch.



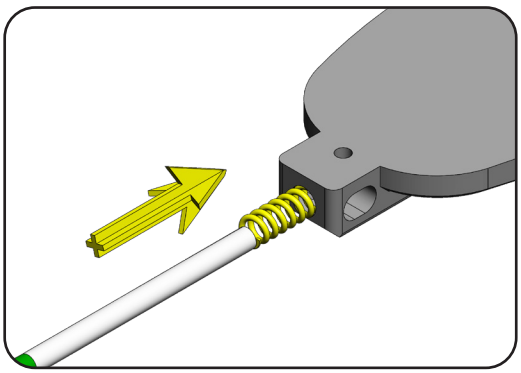
b. Remove the grip cover from the grip.



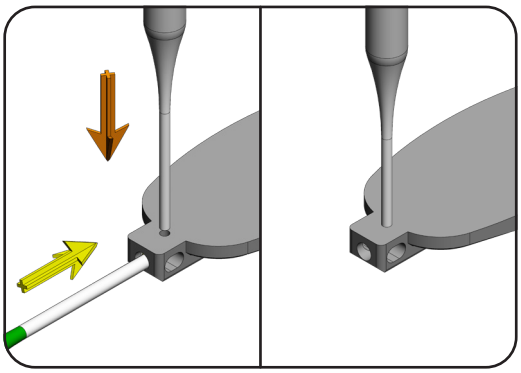
c. Remove the spring for the handle cover.
d. Remove any dirt and foreign particles, replace worn/defective parts.



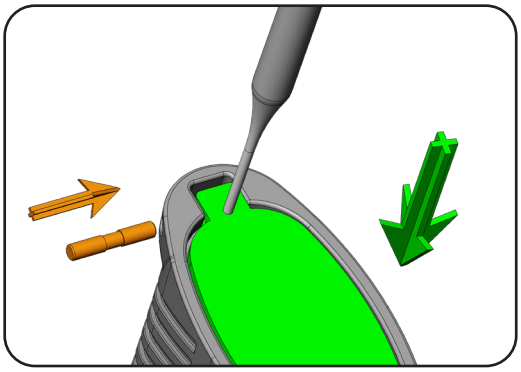
e. Insert the spring for the grip cover into the grip cover and press it in with a 2.5 mm punch.



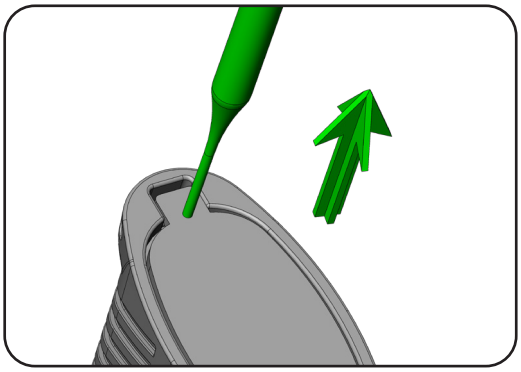
f. Preload the spring with the punch (yellow) until it can be secured with a 1.5mm punch through the mounting hole from above (orange).
g. Remove the 2.5mm punch from the grip cover.



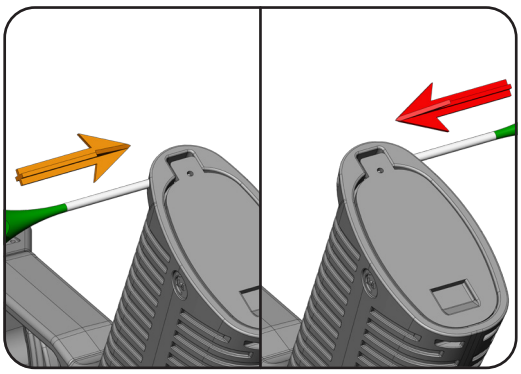
h. Insert the grip cover into the grip.
i. Insert the pin for the grip cover until it is centered in the grip.



j. Remove the 1.5mm punch from the grip cover.



k. Gently press the pin in from both sides to ensure that the spring is engaged in the pin groove.



13. Inspections and measures on the stocks

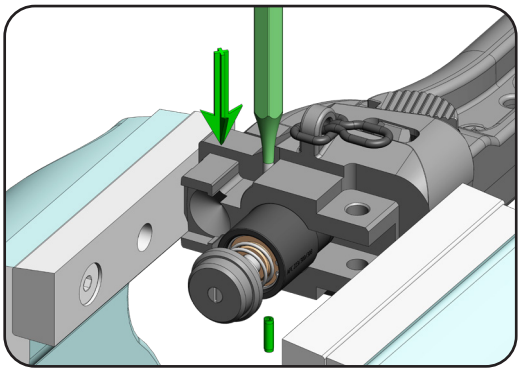
13.1 Hydraulic buffer

13.1.1 Inspections

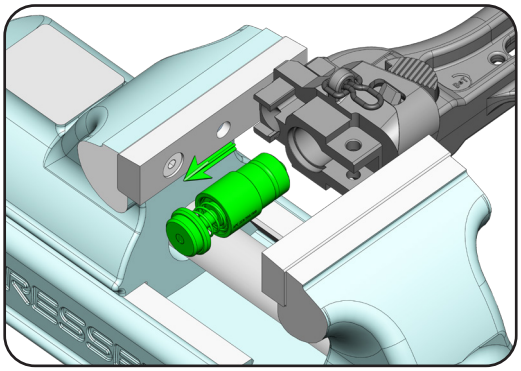
a. Disassemble the weapon.
   » Operator Manual
b. Visually inspect the hydraulic buffer for heavy contamination.
   » Clean if necessary.
c. Visually inspect the hydraulic buffer for cracks or breaks.
   » Replace hydraulic buffer if any cracks or breaks are visible.
d. Visually inspect the hydraulic buffer for oil leakage.
   » Replace hydraulic buffer if any leakage is visible.

13.1.2 Changing the hydraulic buffer

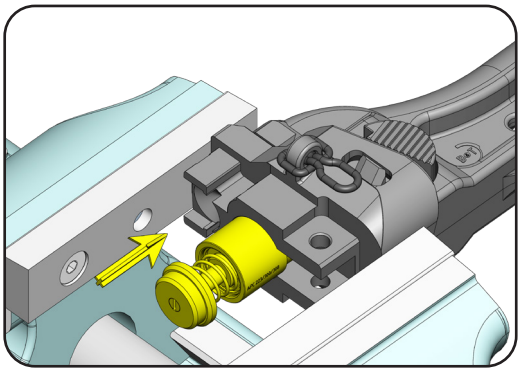
a. Clamp the stock adapter in a vice.
b. Remove spiral pin with a 2.5 mm punch.



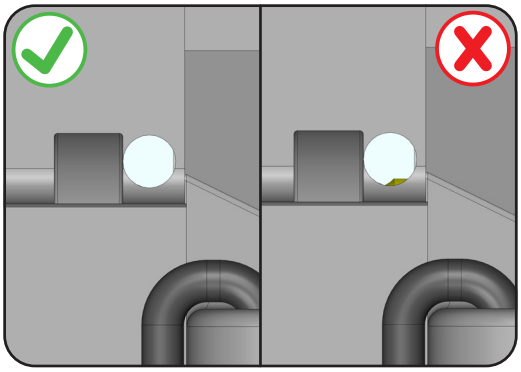
c. Remove the hydraulic buffer from the stock adapter.
d. Remove any dirt and foreign particles, replace worn/defective parts.



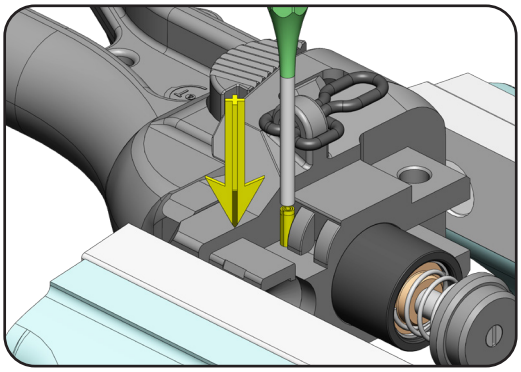
e. Install the hydraulic buffer in the stock adapter.



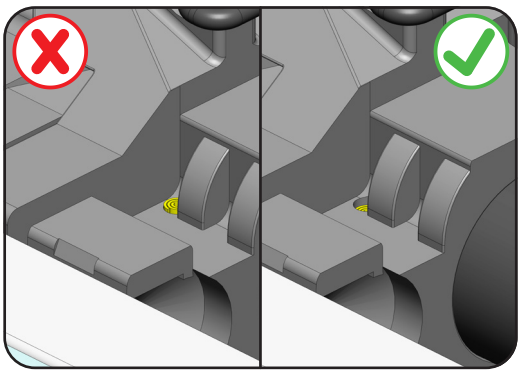
f. Ensure that the hydraulic buffer is installed up to the rear stop so that the retention groove on the hydraulic buffer housing is aligned with the spiral pin bore.



g. Press the spiral pin into the corresponding hole on the stock adapter using a punch.



h. Press in the spiral pin so that it is recessed in the bore on both sides by at least 0.5 mm and does not protrude beyond the surface of the stock adapter.



13.2 Folding and retractable stock PRO

13.2.1 Inspections

a. Visually inspect the stock for dirt, cracks or fractures.
   - » Clean if necessary.
   - » There should be no visible defects.

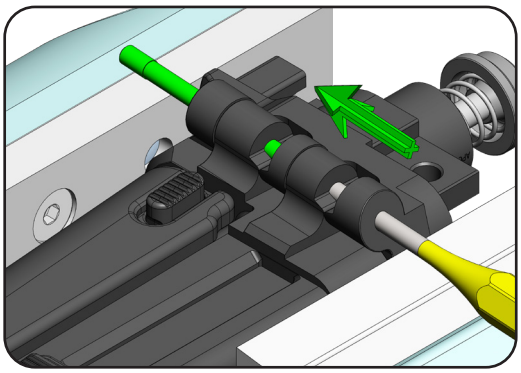
b. Adjust the stock to different lengths.
   - » The stock should be able to be unlocked and extended without major effort and should lock into place at the different lengths.
   - » The stock should be held at the longest position.

c. Adjust the cheek rest to the different heights.
   - » The cheek rest should be able to be adjusted without major force and lock at the individual positions.

d. Fold the stock down and back
   - » The stock should be able to be folded down without major effort.
   - » The stock should lock in both the folded and the straight position and the lock should be easy to release again.

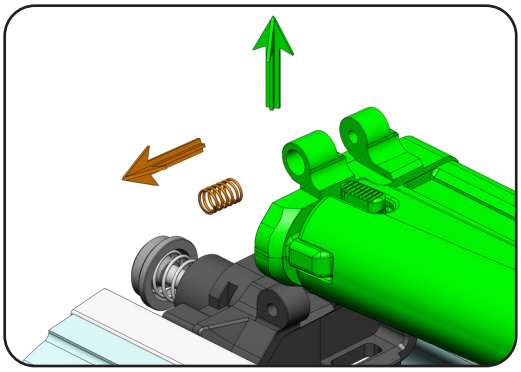
13.2.2 Changing the polymer stock adapter

a. Clamp the stock adapter in a vice
b. Remove the folding axle with a 4mm punch.

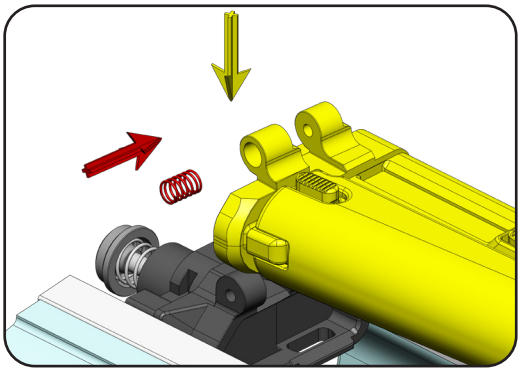


SAFETY ADVICE!	
⚠	The axle spring is under tension, in case of careless handling the spring can pop out when the axle is pushed through.

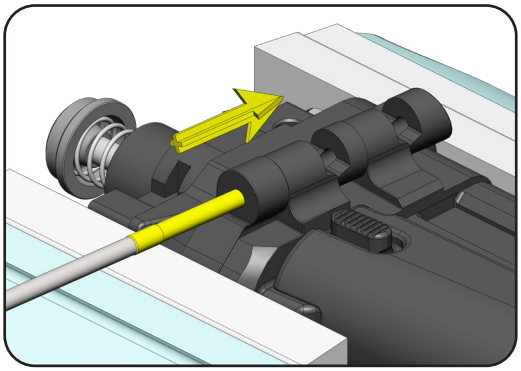
c. Remove the folding part of the stock (green), while also removing the spring (orange).
d. Remove any dirt and foreign particles, replace worn/defective parts.



e. Insert the spring into the recess on the main body (red) and pretension it.
f. Insert the folding part of the stock into the stock adapter. (yellow)
   » Make sure that the spring is not bent during insertion and is correctly seated in the recess.

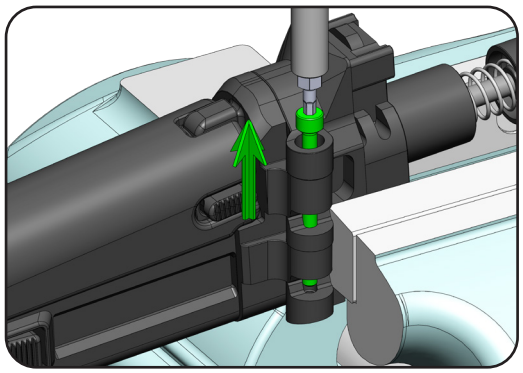


g. Guide the folding axis through the hole on the stock adapter and the base body until the rim of the stock adapter is in contact with the rim of the folding axis.
h. Press the folding axis the rest of the way in until it is seated flush in the stock adapter.



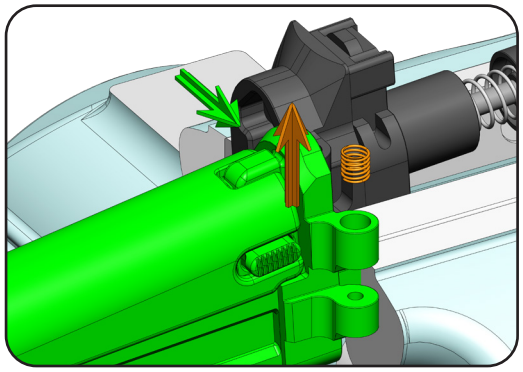
13.2.3 Changing the aluminum stock adapter

a. Clamp the stock adapter in the vice.
b. Remove the folding axle with a TORX key (size TX20).

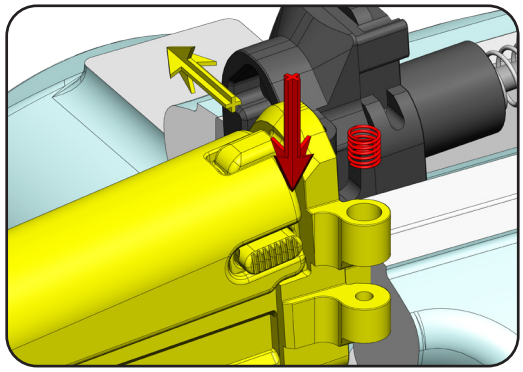


SAFETY ADVICE!	
⚠	The axle spring is under tension, in case of careless handling the spring can pop out when the axle is pushed through.

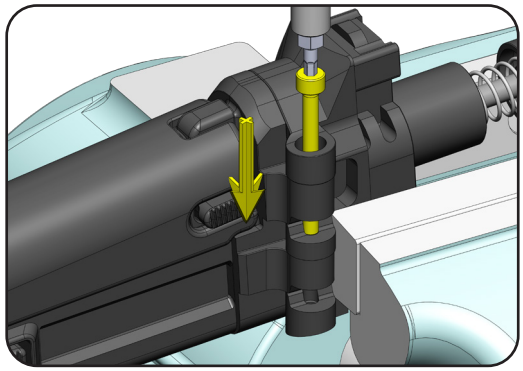
c. Remove the folding part of the stock (green), while also removing the spring (orange).
d. Remove any dirt and foreign particles, replace worn/defective parts.



e. Insert the spring into the recess on the main body (red) and pretension it.
f. Insert the folding part of the stock into the stock adapter (yellow).
   » Make sure that the spring is not bent during insertion and is correctly seated in the recess.

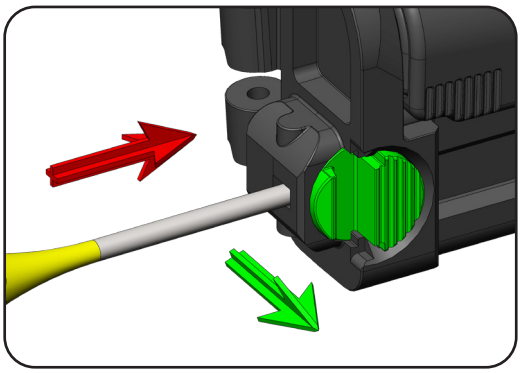


g. Clean and degrease the threads on the folding axis and the stock adapter and apply some Loctite 243.
h. Guide the folding axis through the hole on the stock adapter and base body.
i. Screw in the folding axis and tighten hand-tight (approx. 2Nm).



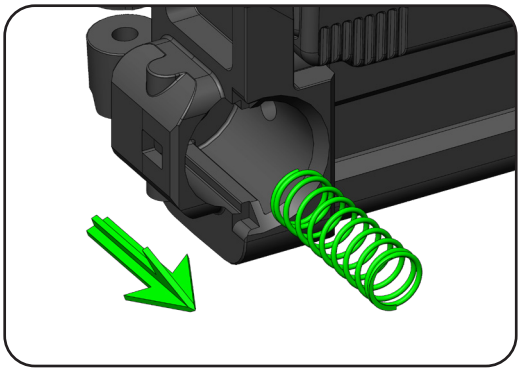
13.2.4 Changing the stock release button

a. Use a 4 mm punch to press in the locking lug of the stock release button (red), securing the stock release button with your thumb.



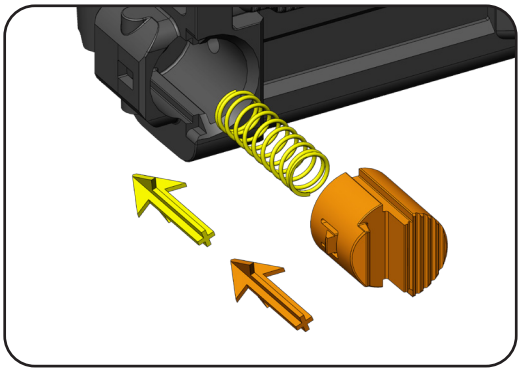
SAFETY ADVICE!	
⚠	The stock release button is under tension, in case of careless handling it may pop out

b. Remove the stock release button from the base body (green).



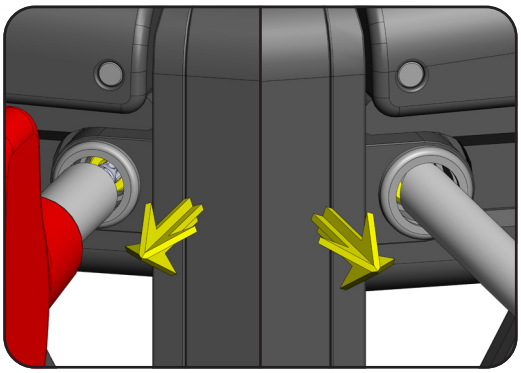
c. Remove the spring from the base body.
d. Remove any dirt and foreign particles, replace worn/defective parts.

e. Insert the spring and stock release button into the base body and press in until the latching lug on the stock release button audibly engages.

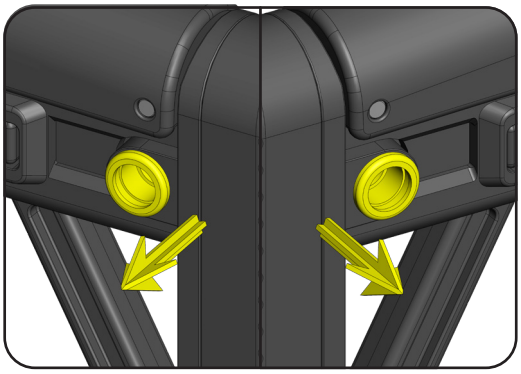


13.2.5 Changing the QD-sockets

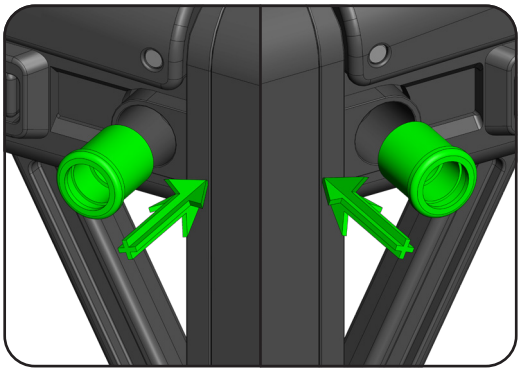
a. Loosen the fastening screw from one side using a TORX key (size T20), while holding the nut from the other side using a slotted nut screwdriver.



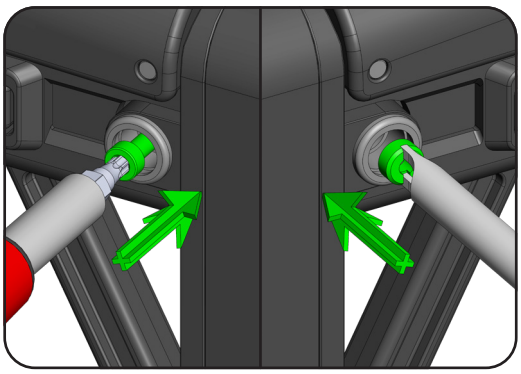
b. Remove the two QD sockets from the base body.
c. Remove any dirt and foreign particles, replace worn/defective parts.



d. Insert the two QD sockets into the base body.

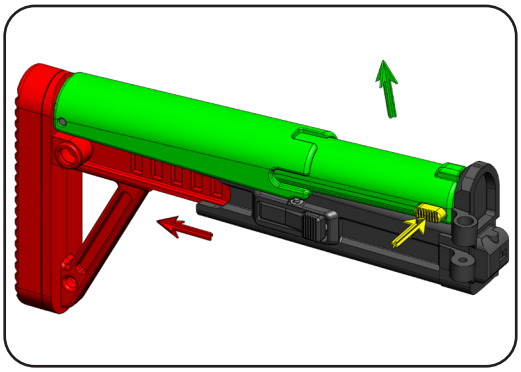


e. Degrease the threads of the screw and nut and apply a little Loctite 243 to both.
f. Insert the screw and nut and tighten them hand-tight (1.5 Nm).

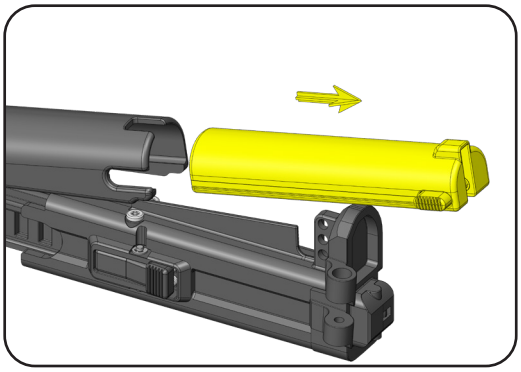


13.2.6 Removing the stock extension and cheek rest

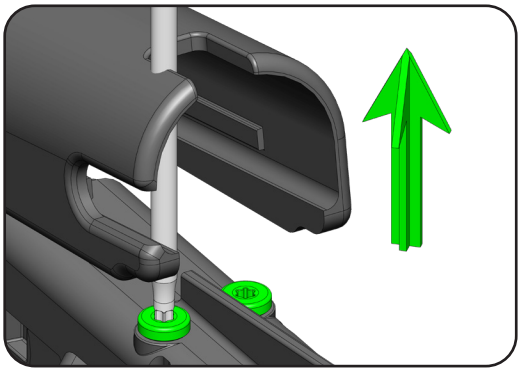
a. Pull out the stock extension completely (red).
b. Push in the cheek rest release button completely (yellow). Simultaneously turn the cheek rest upward beyond the uppermost adjustment position (green).



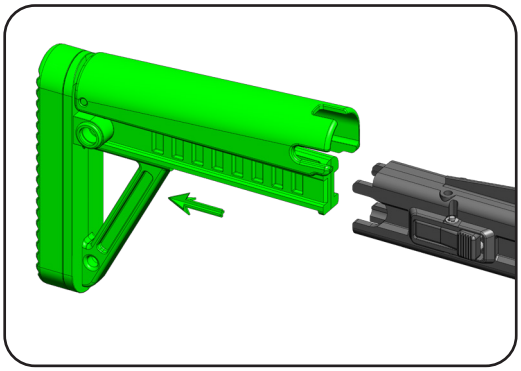
c. Remove the front cheek rest from the rear cheek rest by pulling it forward.



d. Unscrew the two locking screws with a TORX wrench (size T10).

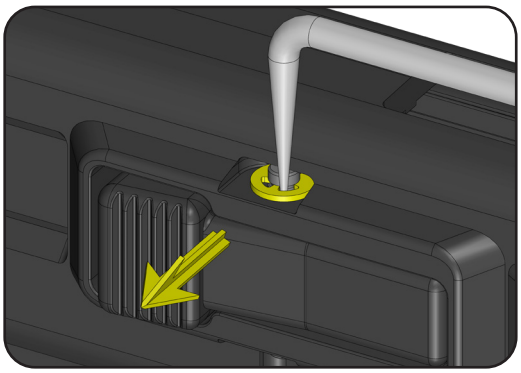


e. Pull the stock extension out of the base body.

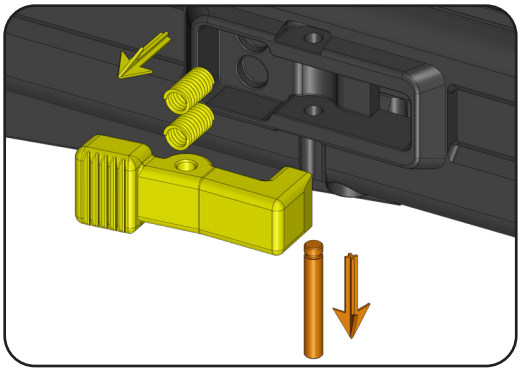


13.2.7 Changing the stop levers

a. Remove the locking washer using a pointed tool (screwdriver size 0).



b. Remove the axle of the stop lever downwards. (orange)



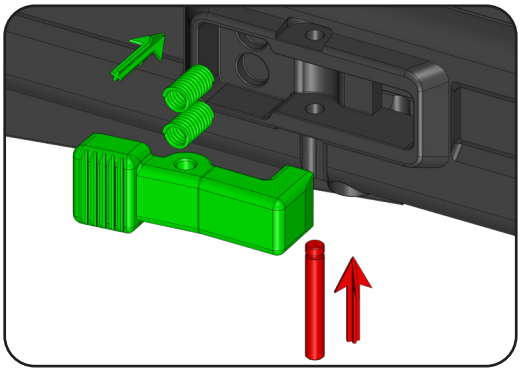
SAFETY ADVICE!	
⚠	The stop lever is under tension, in case of careless handling it can spring out

c. Remove the step lever and the springs from the base body. (yellow)

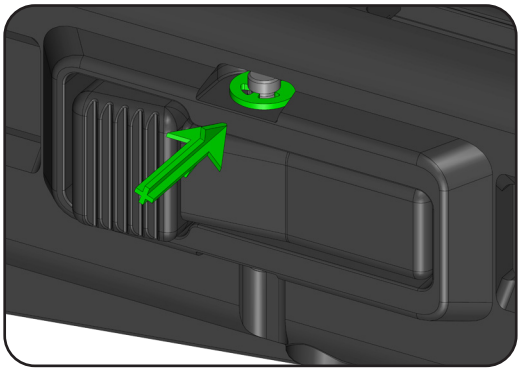
d. Remove any dirt and foreign particles, replace worn/defective parts.

e. Insert the stop lever and the springs into the base body. (green)

f. Insert the axle of the stop lever from below. (red)

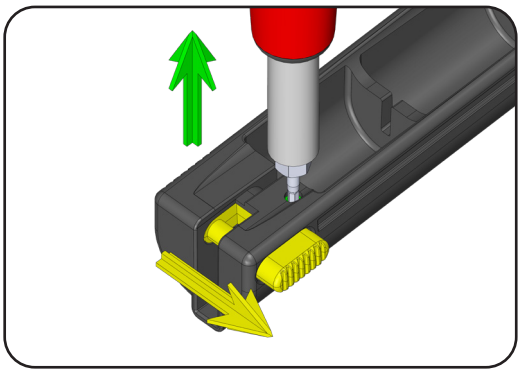


g. Mount the locking washer.



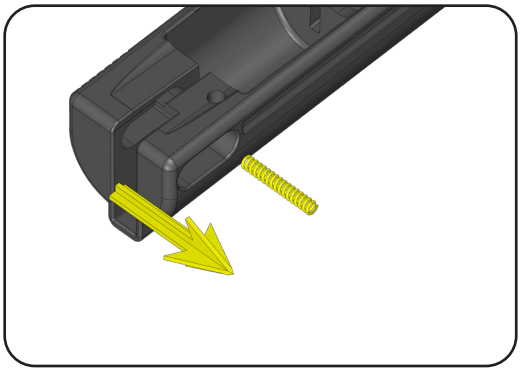
13.2.8 Changing the cheek rest knob

a. Remove the retaining screw with an Allen key (size 2mm) (green) while securing the cheek rest knob with your thumb.

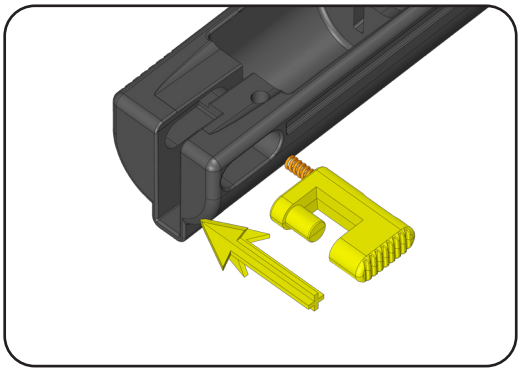


SAFETY ADVICE!	
⚠	The cheek rest knob is under tension, in case of careless handling it can pop out.

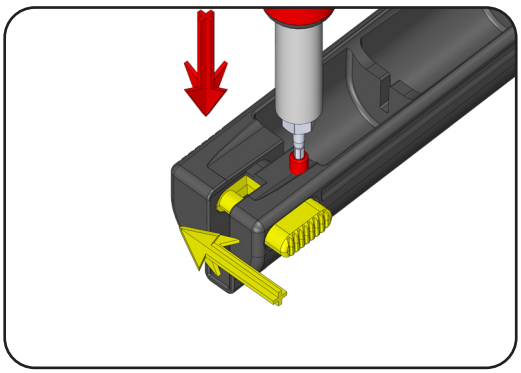
b. Remove the cheek rest knob. (yellow)



c. Remove the spring from the cheek rest.
d. Remove any dirt and foreign particles, replace worn/defective parts.



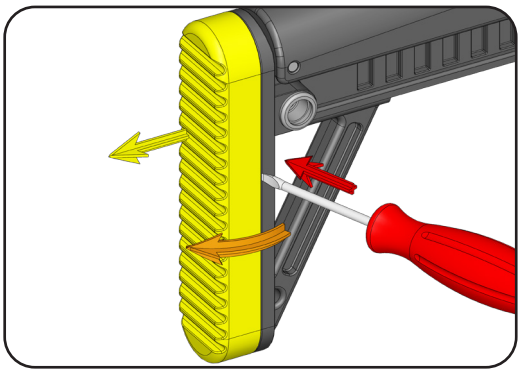
e. Insert the spring into the cheek rest knob. (orange)
f. Insert both together into the cheek rest. (yellow)



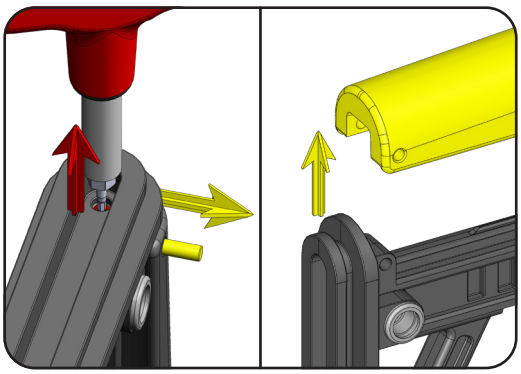
g. Preload the cheek rest knob. (yellow)
h. Mount the retaining screw and tighten it hand-tight.

13.2.9 Changing the back cheek rest and the end cap

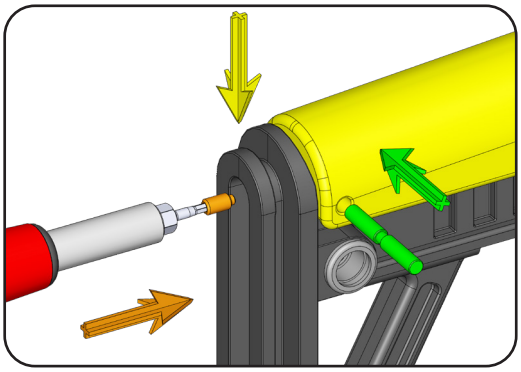
a. Insert a pointed tool (screwdriver size 0) between the Stock extension and the endcap (red).
b. Lift the end cap (orange) and drive it out of the groove on the stock extension.
c. Remove the end cap from the stock extension (yellow).



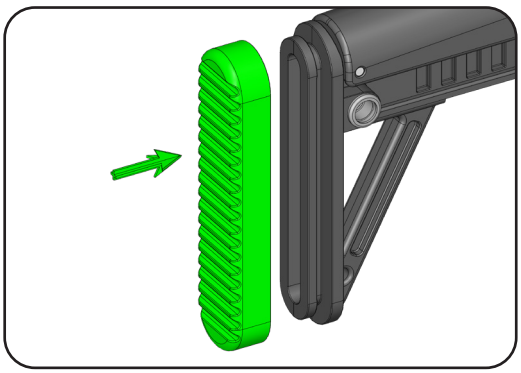
d. Remove the locking screw of the cheek rest axle with an Allen key (size 2mm). (red)
e. Remove the cheek rest axle. (yellow)
f. Remove the cheek rest.
g. Remove any dirt and foreign particles, replace worn/defective parts.



h. Position the cheek rest on the Stock extension (yellow).
i. Install the cheek rest axis (green).
j. Mount the locking screw of the cheek rest axle with an Allen key (size 2mm) (orange).

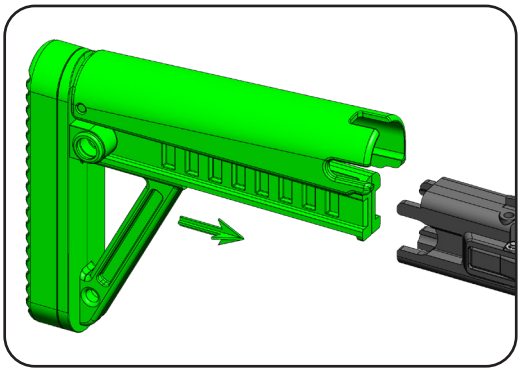


k. Insert the end cap into the groove on the Stock extension.

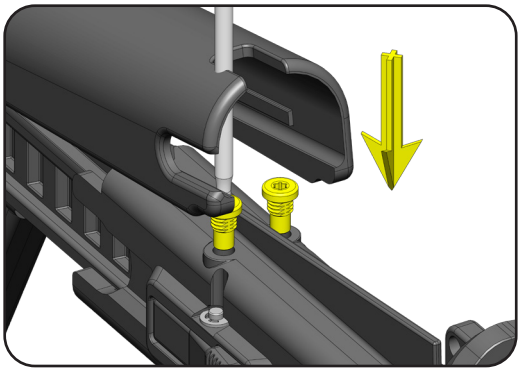


13.2.10 Reinstalling the stock extension and the cheek rest

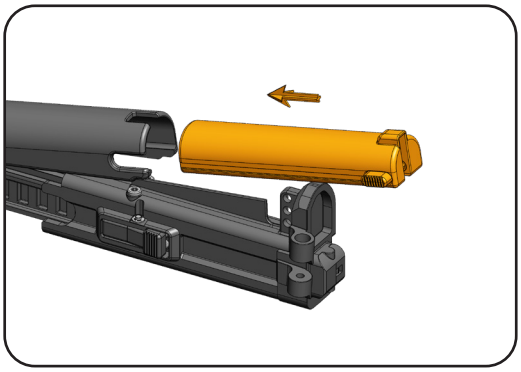
a. Insert the stock extension into the base body.



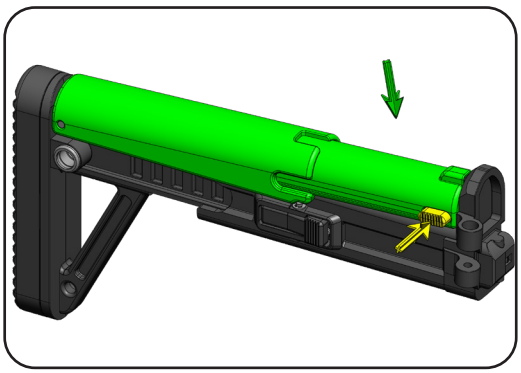
b. Mount the two locking screws with a TORX wrench. (size T10)



c. Insert the front cheek rest into the rear cheek rest from the front.



d. Pull out the stock extension completely.
e. Push in the cheek rest release button completely (yellow). At the same time, turn the cheek rest downward to retract it into the base body (green).



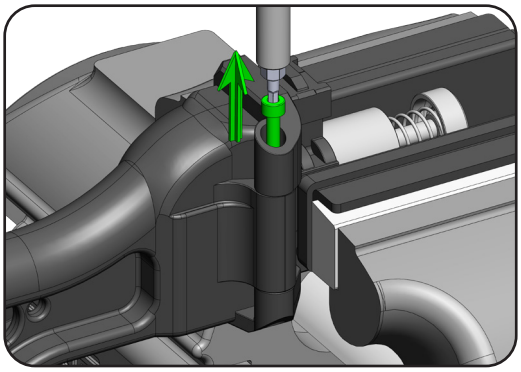
13.3 Folding stock

13.3.1 Inspections

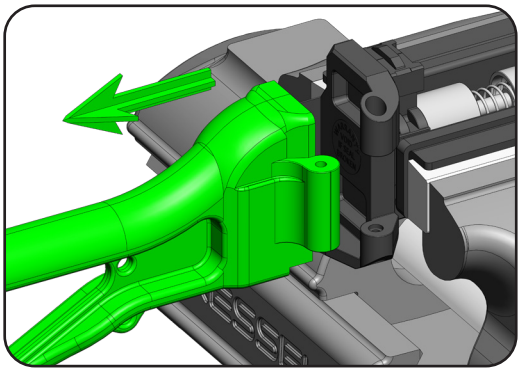
a. Visually inspect the stock for dirt, cracks or fractures.
   » Clean if necessary.
   » There should be no visible defects.
b. Fold the stock down and back
   » The stock should be able to be folded down without major effort.
   » The stock should lock in both the folded and the straight position and the lock should be easy to release again.

13.3.2 Changing the stock adapter / the stock

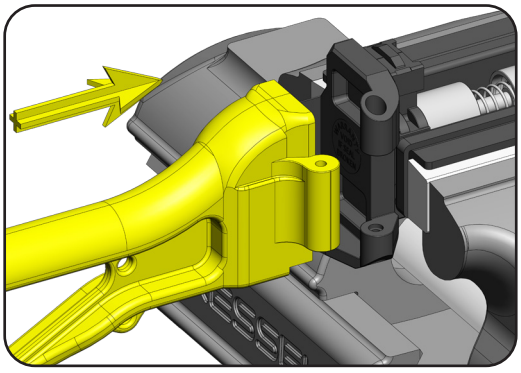
a. Clamp the stock adapter in the vice.
b. Remove the folding axle with an 3mm Allen key.



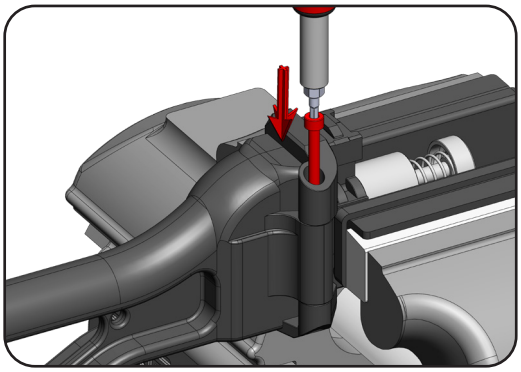
c. Remove the stock from the stock adapter (green)
d. Remove any dirt and foreign particles, replace worn/defective parts.



e. Insert the stock into the stock adapter (yellow).



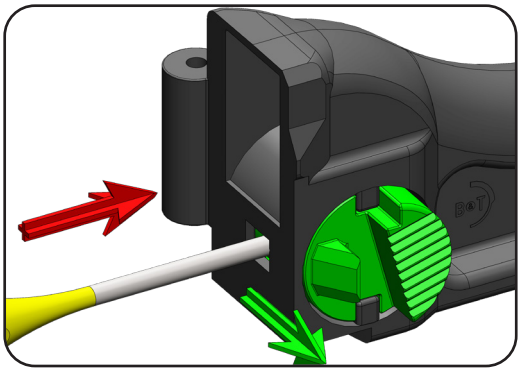
f. Guide the folding axis through the hole on the stock and the stock adapter.
g. Screw in the folding axis and tighten hand-tight. (approx. 2Nm).



13.3.3 Changing the stock release button

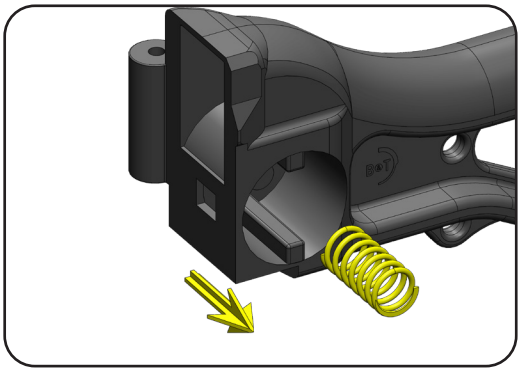
a. Use a 4 mm punch to press in the locking lug of the stock release button (red), securing the stock release button with your thumb.

SAFETY-REMARK!	
⚠	The stock release button is under tension, in case of careless handling it may pop out

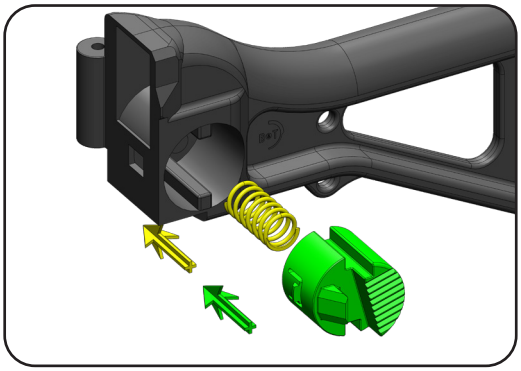


b. Remove the stock release button from the base body (green).

c. Remove the spring from the base body.
d. Remove any dirt and foreign particles, replace worn/defective parts.



e. Insert the spring and stock release button into the base body and press in until the latching lug on the stock release button audibly engages.



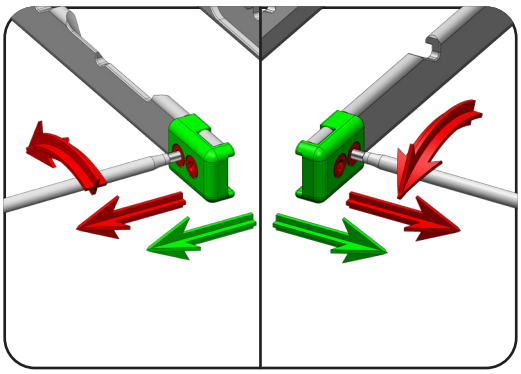
13.4 Telescopic stock

13.4.1 Inspections on the telescopic stock

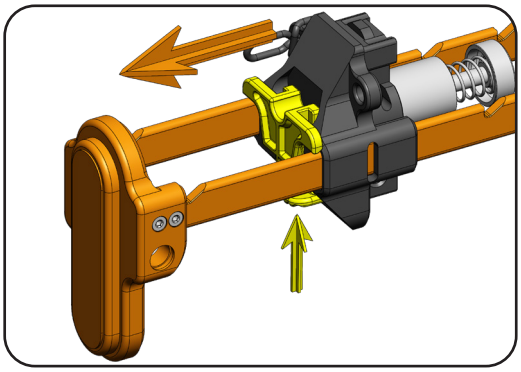
a. Visually inspect the stock for dirt, cracks or fractures.
   » Clean if necessary.
   » There should be no visible defects.
b. Retract and extend the stock
   » The stock should be able to be retracted and extended without major effort.
   » The stock should lock in both the extended position and the lock should be easy to release again.

13.4.2 Changing parts on the telescopic stock

a. Clamp the stock adapter in the vice.
b. Remove the countersunk screws (TORX 10, red) and the end cap on the right side of the stock. (green)
   » Preheat the screws wit a heat gun to break the thread locker.
c. Remove the countersunk screws (TORX 10, red) and the end cap on the right side of the stock. (green)
   » Preheat the screws wit a heat gun to break the thread locker.

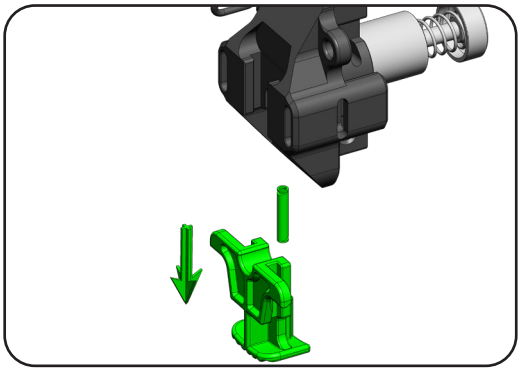


d. Push on the stock release button and hold it. (yellow)
e. Remove the rear stock part from the stock adapter. (orange)

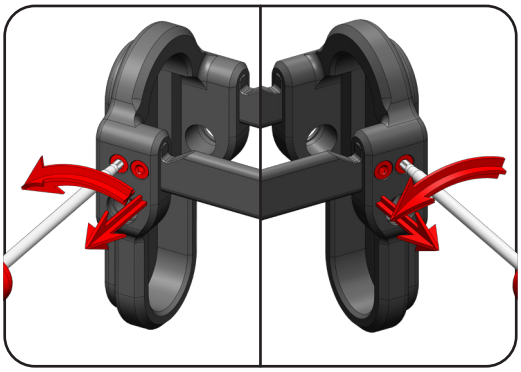


SAFETY-REMARK!	
⚠	The stock release button (yellow) is under tension While pulling the rear stock part out, keep the pressure up with thumb and then slowly release it

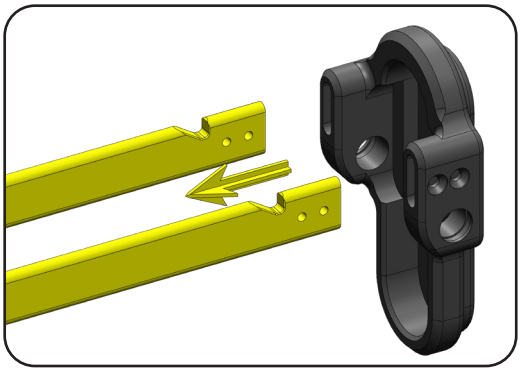
f. Remove the release button and the spring from the stock adapter. (green)



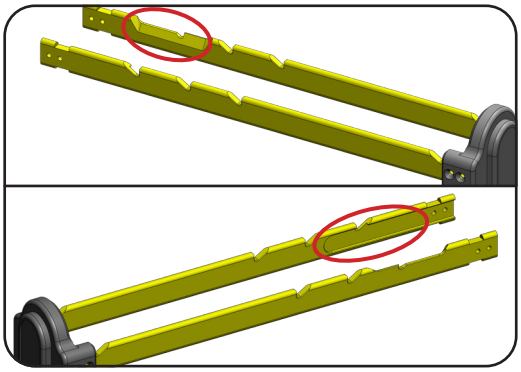
g. Remove the countersunk screws (TORX 10) on the right side of the but plate.
   » (red) Preheat the screws wit a heat gun to break the thread locker.
h. Remove the countersunk screws (TORX 10) in the left side of the but plate. (red)
   » Preheat the screws wit a heat gun to break the thread locker.



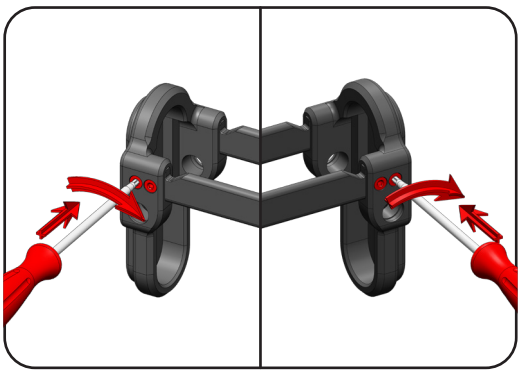
i. Remove both right side and left side guide rod from the butt-plate. (yellow)
j. Remove any dirt and foreign particles, replace worn/defective parts.
k. Clean the four thread holes in each of the two guide rods from all thread locker residue and degrease them.
l. Degrease the eight countersunk screws and sort them by size



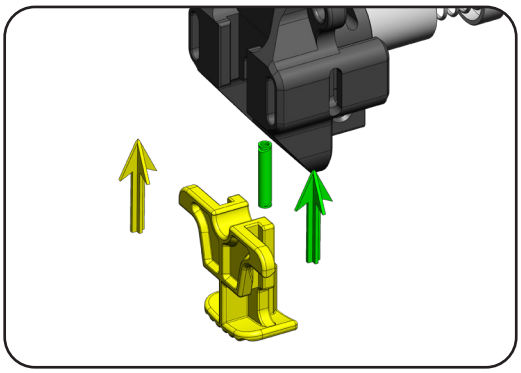
m. Apply a little amount of medium strength thread locker (e.g. Loctite 243) on threads of the two guide rods
n. Insert the right and left guide rod in the butt plate
   » Make sure that the left and right one are correct



o. Screw the 8mm long screws (the longest) through the holes in the butt-plate into the guide rod threads and tighten them hand-tight. (TORX 10, 1 Nm)

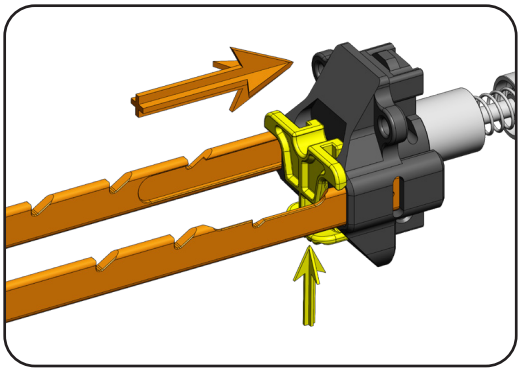


p. Mount the stock release button and its spring into the stock adapter. Push the button in and hold it at the end position.



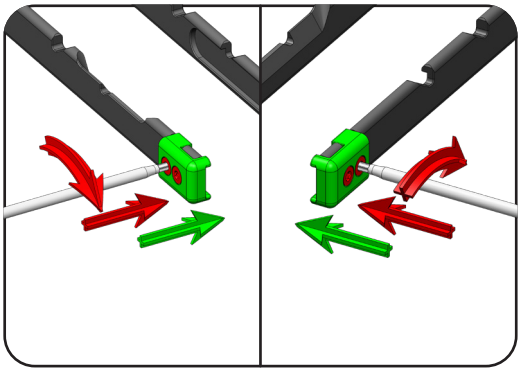
SAFETY-REMARK!	
⚠	The stock release button is under tension, in case of careless handling it may pop out

q. Insert the rear part of the stock into the stock adapter.



r. Insert the end caps on the right and left guide rod. (green)

s. Screw the countersunk screws through the holes in the end caps into the guide rod threads and tighten them hand-tight. (TORX 10, 1 Nm)
   - » Right side: 6mm long screws (the middle ones)
   - » Left side: 5mm long screws (the shortest)



13.5 Troubleshooting

#	Observation	Immediate action
1	Inconsistent impacts	Control correct position and tight sit of the iron sights. Present weapon at first opportunity to armourer for inspection.
2	Failure to feed	Hold the bolt open with the bolt catch, remove the magazine, if there are still cartridges in the upper receiver, remove them. Insert the magazine, close the bolt by pressing the bolt catch. If the malfunction is repeated, use another magazine. If the malfunction persists, check the correct setting of the gas regulator. If the malfunction persists, have the gun checked by an armorer or the manufacturer.
3	Failure to eject	Pull charging handle to rearmost position and observe for ejected shell or cartridge. Inspect barrel to be clear. Load a fresh cartridge. If the malfunction persists, check the correct setting of the gas regulator. Present weapon for inspection of extractor and ejector to an armourer at the first opportunity.
4	Failure to strike	Hold the bolt open with the bolt catch and remove eventual obstructions captured in the upper receiver. Load a fresh cartridge. If failure repeats, clean weapon or present it to an armorer.
5	Failure to ignite	Wait 30 seconds with the muzzle pointing to a safe direction. Then pull charging handle to rearmost position and observe for ejected cartridge. Collect cartridge for later analyses. Load a fresh cartridge. Present weapon and ejected cartridge to an armorer at the first opportunity.
6	Heavy recoil	Check the correct setting of the gas regulator.

REMARK!	
	Failure reports to the manufacturer must include the serial number, gun number, type of ammunition and a failure description. The report can be sent to B&T by e-mail together with pictures.

14. Warranty statement

Warranty claims on behalf of the Client are to be explicitly declared as such. During the legal warranty period, B&T provides warranty cover solely for defects that arise as a result of faulty materials, construction errors or poor workmanship. If a warranty claim is justified, B&T will, at its own discretion, either repair or replace the defective good. Costs incurred in transporting the defective good to B&T are borne by the Client. Spare parts fitted and replaced become the property of B&T.
Inasmuch as is legally permitted, any other liability of B&T is excluded, in particular liability for damages arising either directly or indirectly from the delivered good itself, from its use or from its defects.
Merchandise is covered by the warranty provisions of the manufacturer. Parts that are naturally subject to wear and tear, damage arising from insufficient maintenance work, noncompliance with operating regulations and cases of force majeure are all excluded from warranty cover. Warranty claims lapse if the Client itself or third parties alter or repair the delivered good without the prior written consent of B&T. All product specifications are subject to change without prior notice. Published data are mean values and therefore not suitable acceptance criteria.

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Notes: